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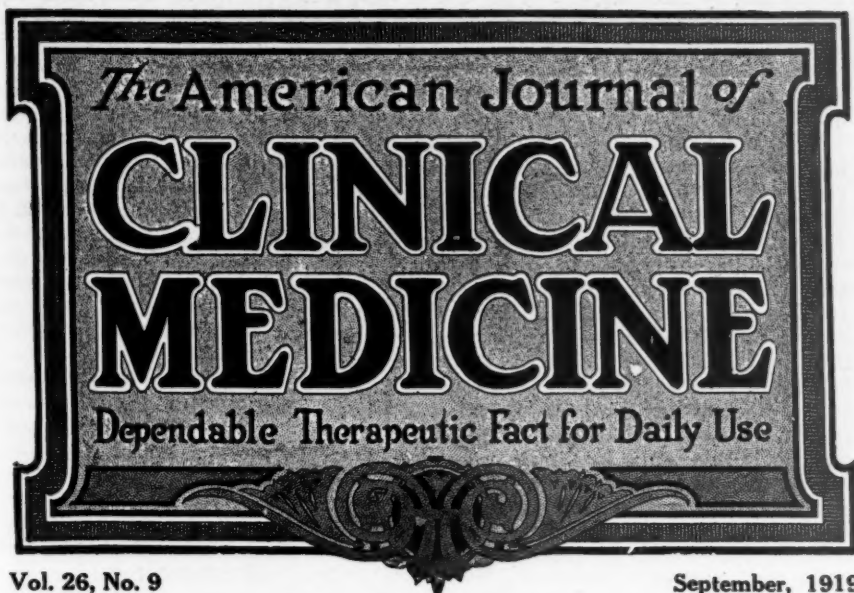
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## Influenza: Will It Break Out Again?

**L**AST spring, after the influenza-epidemic had gradually died out, the opinion was expressed by many physicians that a recurrence of the epidemic would take place this coming winter and, perhaps, during several winters to come. This is in accordance with observations made during the great epidemics, notably those of 1867 and of 1889 to 1895.

Unfortunately, this last epidemic of a disease that, by common consent, has been designated influenza, bore the characteristics of influenza only clinically. Etiologically, it was found that the bacteriology as also the pathology of the disease varied materially in the same localities, and that they differed in different locations. In consequence, there is absolutely no agreement among laboratory-workers concerning the actual causative virus of the disease.

To a certain extent, this reflects unfavorably upon the etiologic or specific treatment, both curative and preventive, it being necessary to select several germs for the production of bacterins, as E. C.

Rosenow has done. This investigator prepared a bacterin from the bacteria found in the expectorations of numbers of influenza-patients. Fortunately, there is ample reason to accept the claim that it has been possible, by means of the influenza-pneumococcus-combined bacterin according to Rosenow, to protect persons definitely against the acquirement of influenza to which they individually have been exposed.

According to various reports, the same vaccine, in smaller doses, has been found useful curatively in the actual disease.

Whatever may be the state of affairs, the probability that influenza will make its appearance again this coming winter must be viewed with serious apprehension, even though some of the factors that undoubtedly contribute to its great virulence no longer are active. Notably, the general nervous unrest and upset caused by the war have been allayed since the signing of the armistice last November. On the other hand, the just as serious social unrest that is being manifested by the constant, unjusti-

fied strikes, by race-riots, and by the constantly increasing cost of living cooperate in bringing about a nerve-tension in the body politic that can not but reflect unfavorably upon the resistance of the individuals to disease.

No matter how we look upon the problem of influenza, it is up to physicians to get ready for the probable approaching return-visit of this destroyer of human life. The wise physician will go over his notebooks and revise his views and observations gathered last winter. He will study the journals and try to outline a method of treatment, both preventive and curative, that will afford a guide of action, so that he may be ready if and when the enemy makes its next onslaught. At the same time, the doctor will lay in a stock of those remedies that he has found useful, whether these be medicinal or biologic, and will hold himself in readiness, also bespeaking the services of nurses, trained and practical, upon whom he can depend to follow his directions.

Thus it will be possible for the individual physician to meet and counteract symptoms of illness in its very incipency. After the lessons of last winter, the people may be trusted to call in a doctor as soon as the slightest suspicion of "flu" is justified. That being the case, the chances will be more favorable for a prompt and energetic fight against this dreaded disease.

Americanism is entirely an attitude of mind; it is the way we look at things that makes us Americans.

—Franklin K. Lane, Secretary of the Interior.

### THE CONTROL OF DIPHTHERIA

On another page of this issue, (p. 642) we publish a series of questions and answers concerning the Schick test of immunity to diphtheria and a method of producing an immunity against acquiring this dreaded disease. The information is copied from the recent issue of the *Monthly Bulletin* of the Department of Public Health and Charities of the city of Philadelphia.

The Schick test was proposed a few years ago by Schick who, unless memory fails us, was a pupil of Professor von Pirquet, the originator of the cutaneous tuberculin test and, therefore, of the anaphylactic skin reactions in general. The problem was investigated with great care, especially by Dr.

William H. Park, of New York, and also by other leading students in immunity.

By means of this slight operation, it is possible to determine in each individual case whether or not a subject is susceptible to diphtheria and, in case of a positive reaction, an immunity can be produced by the suitable administration of the toxin-antitoxin mixture devised for the purpose. In this way, the frequency of diphtheria is diminished materially and gradually the people can be rendered immune to this disease—by deliberate immunization wherever necessary—in the same manner as people now are kept immune to smallpox by deliberate vaccination.

Physicians are urged to familiarize themselves with this reaction, the technic of which is very simple. It should be easy enough to convince the parents of children of the immense value of the test and also of its reliability.

### THE TREATMENT OF DRUG-ADDICTION

In its issue for July 18, *Public Health Reports* publishes an interesting and valuable discussion of the subject referred to in the title. It is pointed out that the medical profession should be advised, at least, to the extent of aiding its members to determine what does and what does not constitute legitimate professional practice concerning the treatment of narcotic-drug addiction, since the United States Supreme Court has decided that narcotic drugs may not be prescribed or dispensed to an addict, except for the purpose of curing; and it is important that physicians should understand to what extent and in what manner the legitimacy of the recognized methods of curative treatment is affected by recent court rulings.

In accordance with actual circumstances, all methods of curative treatment are divided into two broad classes: the "ambulatory" and the "institutional." The ambulatory treatment may be defined as any treatment in which narcotic drugs are prescribed or dispensed to a patient for self-administration, so that he has control and possession of the drugs and is physically free to use them in any manner he desires, regardless of the physician's instructions. The institutional treatment may be defined as any treatment in which narcotic drugs,

if used at all, are administered by a physician or by a nurse under a physician's direction.

The article in *Public Health Reports* referred to shows that the purposes of the Harrison Law are fully satisfied under the institutional mode of treatment, because then nobody but the physician, who possesses and has paid for the license to dispense narcotic drugs, administers the individual doses to the patients. On the other hand, the ambulatory treatment readily lends itself to abuse by unscrupulous physicians and, even when the ambulatory treatment is administered conscientiously, as a matter of fact, genuine cures have rarely been effected by it. Competent authorities, therefore, feel justified in advising against the ambulatory method of treatment; and, incidentally, it has always been the conviction of CLINICAL MEDICINE that, for the successful cure of drug-addiction, the institutional care is more promising of definite and lasting results.

It is pointed out that the physician employing the ambulatory method of treatment must realize that he places himself in the power of his patients and that his good faith to a great extent becomes dependent upon theirs. Incidentally, if the patient is entrusted with a hypodermic outfit for the administration of the permitted amounts of the narcotic, the risk of abscess formation through lack of cleanliness is great. Moreover, serious communicable diseases have been transmitted through the common use of a needle by several patients. Finally, the ambulatory method of treatment does not give the physician an opportunity absolutely to control the amount administered at each dose and the intervals between doses and thus determine the minimum physiologic requirement of the patient.

Aside from the prescribing or dispensing of narcotics in the course of treating drug-addicts, Mr. A. D. Greenfield, the author of the article in *Public Health Reports*, points out that nothing in recent court-rulings affects the right of physicians to use these drugs in the treatment of diseases or pathological conditions other than drug-addiction, including the alleviation of pain. Since addiction may result incidentally to the taking of narcotics for alleviating pain, it may become a legitimate addiction, as contrasted with the illegiti-

mate practice for which there is no justification. As regards the legitimate form of addiction, a quotation from *The Weekly Bulletin* of the New York City Health Department, for May 3, is relevant in this connection. It is as follows:

"Every physician must feel free to treat such cases in accordance with his own professional conscience and judgment, and no reputable physician should hesitate to do so. In this, as in all cases with which a physician has to deal, it is his duty to seek the underlying cause of the patient's condition and direct his treatment to the elimination of that, wherever practicable, rather than to the alleviation of symptoms; many cases of drug-addiction owe their origin to professional carelessness in this respect. But, where it is not possible to remove the cause and where its continuance renders necessary or desirable, in the practitioner's honest judgment, the use of morphine or other narcotic, he need not fear getting into legal difficulties by continuing its use, even though the patient be an addict. In fact, it is highly desirable that patients of this class be freely treated by reputable physicians, rather than be compelled to rely upon questionable sources for the relief to which they are rightfully entitled."

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There is in every one of us, however educated and polished, a secret, selfish, arrogant ego and there is in every one of us a real nobility. In this war I could see that there came out immediately the finer man, and that better self we must keep alive.  
—Franklin K. Lane, Secretary of the Interior.

## INTERPRETATION OF THE HARRISON ACT

*Public Health Reports* for July 18 refers to a case decided in the United States Circuit Court of Appeals. According to this report, the defendant, a physician, issued to addicts prescriptions for narcotic drugs, to keep them supplied, and, not for the purpose of effecting a cure. He was indicted for unlawfully dispensing, distributing, and selling morphine sulphate. It was charged that the prescriptions were not issued "in the course of his professional practice only" and that there were no written orders on the prescribed form. The prescriptions were filled by different pharmacists, and, it being shown that there was no participation by the defendant in the different sales made by the pharmacists, the

court held that the mere issuance of the prescriptions by the defendant was not a sale or such dispensing or distribution as amounts to a sale.

We confess that this decision is puzzling, especially as an abstract of another case was published in the journal quoted (April 4, page 688), in which case the United States District Court for the western district of Pennsylvania decided that the giving of such prescriptions is a violation of the provisions of the Harrison Act. We are accustomed to have "doctors disagree;" but, what of the legal gentlemen?

#### IMPORTANT RULING UNDER THE FEDERAL ANTINARCOTIC LAW

The office of the Commissioner of Internal Revenue, Treasury Department, Washington, D. C., has sent the following information to the Collectors of Internal Revenue and to others concerned, which includes physicians, as it influences the latter materially:

"The ruling contained in T. D. 2200 of May, 11, 1915, permitting a practitioner to dispense or prescribe narcotic drugs in a quantity more than is necessary to meet the immediate needs of a patient is hereby revoked and the revocation shall be applicable in all cases whether a decreasing dosage is indicated or not.

"The Act of December 17, 1914, as amended by the Act of February 24, 1919, permits the furnishing of narcotic drugs by means of prescriptions issued by a practitioner for legitimate medical uses, but, the Supreme Court has held that an order for morphine issued to a habitual user thereof, not in the course of professional treatment in an attempted cure of the habit, but, *for the purpose of providing the user with morphine sufficient to keep him comfortable by maintaining his customary use* is not a prescription within the meaning and intent of the Act (U. S. v. Doremus, No. 367, October Term 1918, T. D. 2809).

"In view of this decision, the writer of such an order, the druggist who fills it, and a person obtaining drugs thereunder will all be regarded as guilty of violating the law."

The italics are ours and are used intentionally, so as to direct the attention of

physicians to a ruling of the Supreme Court, which makes it a somewhat hazardous undertaking for any physician to engage in the treatment of a narcotic-addict.

According to this ruling, it is *illegal* to provide a drug-addict with morphine sufficient to keep him comfortable by maintaining his customary use, and, even though the ruling differentiates between such a dispensing of morphine and any measure taken "in the course of professional treatment in an attempted cure of the habit", it might be difficult in a test-case to establish beyond a reasonable doubt that any morphine dispensed, by the physician, to a morphine-user had been given in the course of treatment and (as the law provides) with suitable attention to the gradual reduction of the amount of morphine used.

The important point is, that physicians should be extremely careful to record every single dose of a narcotic drug that they may be dispensing and to keep detailed case-records wherever narcotics are employed. In cases involving the treatment of drug-addiction, these records should be minute and the physician should be in a position to show that he is steadily reducing the amount of morphine permitted his patient, and that he does not, under any circumstances, provide him "with morphine sufficient to 'keep him comfortable' by maintaining his customary use."

As we read the ruling, a constant, even though gradual, reduction of the accustomed drug, for the purpose of ultimate cure, does not fall under the ban of the law, while the continued dispensing of the same quantity of the narcotic certainly would do so.

Physicians will do well to adhere very closely to the letter of the antinarcotic-drug law, so as to save trouble. It will be much wiser to err on the safe side than to take chances. The best and safest place for the successful treatment of narcotic-drug addiction undoubtedly is, in a well conducted institution.

So far the law. But—how about those narcotic-addicts that come to the physician for relief and who can not possibly be sent to an institution for treatment? There are many such and, often, their distress is pitiful. In most cases in which the gradual-withdrawal treatment is at all applicable, it can be carried out very slowly; in the most favorable cases, in our experience, a



lessening of a given dose being possible only about from week to week. In the interim, those poor devils must have their dope if they are to live at least in reasonable comfort. As it is now, if the physician prescribes or dispenses sufficient quantities in this sense, he acts contrary to the law and is liable to prosecution.

While we admit, without hesitation, that regulation of the narcotic-drug traffic, including its prescribing and dispensing, is a step forward, we suggest that the Government, having taken this step of paternalistic legislation, should be consistent and logical. It should make provision for those addicts and incurable patients that can not, under ordinary circumstances, be provided for in some institution. Even a beneficent government does not possess the right to condemn any citizen to continued misery, unless by way of penalty for offense committed. So, the addict, who is not necessarily a criminal, should be mercifully and adequately taken care of.

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Just as there is no way by which the breath of life can be put into a man's body, once it has gone out, so there is no manner by which with all our wills, we can make an American out of a man who is not inspired by our ideals and there is no way by which we can make anyone feel that it is a blessed and splendid thing to be an American, unless we are ourselves aglow with the sacred fire, unless we interpret Americanism by our kindness, our courage, our generosity, our fairness.

—Franklin K. Lane, Secretary of the Interior.

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### THE TREATMENT OF TUBERCULOSIS

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For some years the great and first maxim for the physician treating tuberculosis patients has been that "fresh air, food, and rest will cure the disease." To supply these factors, to insist upon it, that the tuberculosis patients rest and again rest, in the open air, and that they receive a plenty of wholesome and nutritious food, has been the fixed and established rule of sanatoria as well as of physicians in charge of this class of patients in private practice.

At the annual meeting of the Colorado state medical society, in September, 1918, Dr. S. W. Schaefer, of Colorado Springs, insisted upon absolute rest in bed for at least a month or six weeks, for every patient coming under treatment, regardless of the stage of the case, the temperature or the pulse. If the patient exhibits ele-

vation of temperature or pulse, the bed-treatment is continued until no fever has been registered for at least one month and the pulse has improved in quality. In moderately advanced and far-advanced cases the patients often are kept in bed for several months after the temperature has returned to normal, they being permitted to go to the bathroom once a day for the purpose of emptying the bowels, while, being strictly confined in bed for the rest of the day, even being forbidden to talk or read, and encouraged not even to think.

To this absolute-rest treatment, it was objected, in the discussion, that very often sick working-men are made into healthy loafers by that procedure—a point that we believe to deserve greatest consideration. The present writer has observed many instances in which tuberculous people took to this *dolce far niente* phase of the "cure" like ducks to water, and ever after were so confoundedly solicitous for their little health that they permitted their families to support them in their inactivity fearing to do any work, even if requiring but moderate exertion, while superlatively willing to undergo all sorts of exertion at fishing and hunting and tramping.

Here, as in other conditions, the keynote of success, naturally, is individualization. Doctor Schaefer's plan, in general, indubitably is to be commended and adopted wholeheartedly, certainly for all tuberculous patients showing elevation of temperature (by which he means any temperature over 98.6° F.) or a rapid and weak pulse. We also quite agree with Doctor Schaefer when he insists that the rest-cure should be continued for a sufficiently long time to afford the affected lungs an opportunity to heal and until fibrous healing has been established. Nevertheless, we can not subscribe without qualification to his thesis that absolute inactivity should be insisted upon and persisted in in every case of that kind.

We are reminded of an interesting article contributed by Dr. Bayard T. Crane to *The Boston Medical and Surgical Journal* for July 17, on occupational therapy. Doctor Crane pleads for the addition, to existing methods of treatment of tuberculosis, of those that will more fully expand the scope of the treatment so as to help the individual patient, and in which the tem-



perament and peculiar characteristics of the individual will receive consideration. It is an attempt to instil into the treatment inspiring influences created by diversion, by occupation of mind, by stimulating the flagging interests, and reeducation of faith and self-confidence.

In Doctor Crane's observation, what he designates as "occupational therapy" has proved of sufficient value to be included as a remedial agent of considerable importance in institutions for the treatment of tuberculosis. While this is not effective in every case, without exception, about one-half of the patients can be expected to derive direct benefit. In some instances, even long-lasting fever-temperature has receded to normal as a direct result of the method. In many instances, occupational therapy served to curb the restlessness of certain patients cursed with "temperament".

Not infrequently, occupational therapy is educational along esthetic lines inciting a new remedial interest in the patient's life that well might become an avocation. In certain limits, it is restful, because it provides a change and helps to kill time. It makes a break in the treadmill of invalidism, and, by making out of the patient a creator, one that does things, it relieves him from the self-reproach of being a do-nothing and a parasite.

There are, indeed, many diseases in which occupational therapy might prove of invaluable service and in which it must prove especially serviceable through the psychological benefits accruing. The mentality of tuberculosis-patients usually is extremely labile and therefore the nerve-centers of vital processes, especially of fever, respiration and circulation, are constantly kept in an irritable condition. Without a doubt, if the mind of a great many of these patients can be set at rest, can be kept pleasantly occupied, a beneficial influence upon the body is sure to follow.

Thus, between the plan outlined by Dr. Schaefer and that described by Doctor Crane, both have their justification and both are valuable. While no generalizations are admissible, and, while it always must be insisted upon that each patient must be managed individually, according to his own personal peculiarities, it will be well for physicians having charge of tuberculous patients to keep in mind the necessity of rest, but, also, the necessity of

tempering the tedium of rest, and its possible harmful consequences, whenever it is possible and whenever the safety of the patient will permit.

#### THE TUBERCULOSIS PROBLEM OF THE ARMY

During the organization and mobilization of our army, after the men had passed the examinations of the selective-service boards and had been inducted into the army, repeated reexaminations were made, in the camps, with a view to eliminating those who might be in danger of acquiring tuberculosis. This service was under the direction of Colonel Bushnell, to whom Dr. David C. Twichell (*Southwest Med.*, July) pays deserved tribute. He says that Colonel Bushnell in his wise handling of the army tuberculosis problem, due to his many years of experience and preparedness at Fort Bayard, carried through a program of thoroughness and far reaching effect second only in importance to that of the Surgeon General. The result was that some 10,000 cases of tuberculosis were detected and eliminated from the army and that, thus, there was no tuberculosis problem among our soldiers in France. As Colonel Bushnell says, the Canadian government estimates that each tuberculous soldier returned from Europe costs the government \$5,000. If there had been no examinations held, those 10,000 patients would have been sent to Europe and then returned home at a cost of \$5,000 each, making a total of \$50,000,000.

#### THE WILL-O'-THE-WISP OF CLIMATIC TREATMENT

The benefit, almost specific, of "climate" in the treatment of pulmonary consumption has been an article of faith for ages. Already, in the Ayura Veda of Susruta and in the writings of Hippocrates, the advantages of climate were mentioned. The physicians of Rome were wont to send their consumptive patients to Egypt, as Pliny the younger says, not so much for the favorable Egyptian climate, but, because of the sea-voyage involved. Galen believed that the climate of high and dry places would serve to dry up the secretions, and thus it was throughout centu-

ries, up to most modern times, while to this day the merits of climate are firmly believed in by the laity and even by some physicians.

Since the nature of pulmonary consumption has become better understood and tuberculous disease has been made the object of intensive study, the views concerning the therapeutics of this malady, naturally, had to be materially modified. At the present day, rest, nutrition, and open-air comprise a trinity of treatment that is accepted as gospel, which thinking physicians observe with strict attention, that is to say, as to the individual requirements of their tuberculous patients—fortunately, for the latter's sake.

However, although great progress has been made, and while the actual value of the climatic factor in the treatment of tuberculosis is now evaluated far more correctly than ever before, it still happens all too often that this aid is invoked, for the benefit of individual patients, without proper discrimination. Many tuberculous patients are sent to climates supposedly beneficial, without arrangements having previously been made that they may be received in a sanatorium and without its having been made sure that they will have sufficient funds to take care of themselves, at least for a year, and to obtain proper medical and nursing-services.

Countless persons have been encouraged to go east, go west or south, or anywhere where the climate is believed to be especially favorable—sometimes with the inhuman advice to "rough it", often with the almost criminal injunction to "just keep in the open air all the time and eat well, and, for goodness' sake, stay away from those doctors." In many of such instances, these pitiable patients had just about enough money to take them to the place, wherever that might be, and to keep them going for a month or two, after which they would drift and inevitably become charges of public charity, ultimately having to be sent back home, very often, to die upon arrival.

In a recent communication sent out by the Chicago Tuberculosis Institute, the viciousness of such a procedure is clearly laid bare, and corroborative evidence from well-known tuberculosis-physicians in New Mexico, in California, in Colorado, and in various other localities is adduced. It

hardly is necessary to quote the remarks cited in the letters referred to. Discussions on the value of climatic treatment of tuberculosis can be found in almost any textbook on the subject and in numerous special articles that have appeared in periodical literature.

But, the point can not be stressed with too much emphasis, that it is criminal to permit a tuberculous patient to leave his home for no matter what climatic surroundings, unless he can be assured of a comfortable living wherever he may go, and unless he can command sufficient means to keep him comfortably for not less than a whole year.

There is another factor that might be mentioned, incidentally, for observance under such conditions where everything else would be favorable for "chasing the cure" away from home. That is, the probability of nostalgia (homesickness) being superadded to the tuberculous disease. To make satisfactory financial arrangements for the patients to go forth in search of health is not enough when the ever-greatest and most-formidable enemy is homesickness. This must be guarded against just as carefully as want and lack of medical treatment.

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Our boys went across the water. Never let us hesitate to speak their glorious names in pride—our boys went across the water, because they were filled with the spirit that has made America; a spirit that meets challenge; a spirit that wants to help. Combine these two qualities and you have the essence of Americanism—a spirit symbolized by the Washington monument; that clean, straight arm lifted to heaven in eternal pledge that our land shall always be independent and free.—Franklin K. Lane.

### VENEREAL DISEASE IS QUARANTINABLE

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The following information is taken from an article appearing in *Public Health Reports* for July 18, and deals with the anti-venereal and sex-hygiene program for the colored population. As long as venereal diseases are not included in those communicable diseases that must be reported to the local health-departments and are under the constant control of that department, the possibility of the unrestricted transmission by infected persons is constantly present. It is well that the laity are acquiring a more correct understanding and appreciation of the importance of the so-called social diseases. The more the

laity will learn about this problem, the sooner the demand will be insistent that they be controlled absolutely, in order to diminish the likelihood of their being spread as recklessly as has been the case.

As for the right of local health authorities to quarantine a person infected with a venereal disease, *Public Health Reports* for July 25, on page 1623, cites the following case heard by the Supreme Court of Nebraska:

"A woman was arrested and was found to be infected with a venereal disease. The health-commissioner of Omaha ordered her to be detained in the detention-home of the city, for treatment, until there was no further danger of her communicating the disease. In a habeas-corpus proceeding for securing her release from quarantine, the court upheld the action of the health-commissioner and denied the writ."

We have nothing precious that does not represent struggle. We have nothing of lasting value that does not represent determination. We have nothing admirable which does not represent self-sacrifice. We have no philosophy except the philosophy of confidence, of optimism and faith in the righteousness of the contest we make against nature.

—Franklin K. Lane, Secretary of the Interior.

### ALL ABOUT THE BABY

The July issue of *Illinois Health News* is devoted to information on the care of the baby.

While the first public efforts for the welfare of infants dealt almost entirely with the sick baby and with the problems of summer, which is the season of greatest peril, it is now realized that infant mortality is best kept at a low level by dealing with the well baby, by keeping infants in the best health, and that this is a matter of all-the-year-around activity, not of any particular season.

In the matter of the care of the baby, it is always the little things that count. It is the everlasting, untiring, unforgetting attention to the small things that make for the comfort of the little ones and keep them well, enabling the babies to grow into healthy children and adults.

The babies' number of the *Illinois Health News* offers a vast amount of sensible information, such as physicians should present to their clients, especially the mothers of their little patients. It is headed by a very clever cartoon entitled "A Strike in

Babyland," where the demands of the babies are recorded on placards.

We are under the impression that copies of this Babies' Number can be secured by writing to Dr. Henry B. Hemenway, chief of the Public Health Instruction, Department of Public Health, Springfield, Ill.

### THE OLD GUARD IS DYING OUT

As we are going to press, we receive word of the death of Dr. Truman M. Stewart, of Rockford, Illinois. Doctor Stewart was an old resident of Dakota, having practiced there for thirty-seven years. At the time of his death, he was seventy-five years, one month and nine days old. He was a life long subscriber of *CLINICAL MEDICINE*. We extend to his widow the expression of our deep sympathy.

### UNIVERSAL MILITARY TRAINING

We have received, from the president of the Universal Military Training League, 1322 First National Bank Bldg., Chicago, a letter calling our attention to the campaign for federal legislation to establish universal obligatory military and vocational training. Among other things, the writer of this letter makes the following remarks:

"Discipline is negligible in the American home; every boy, or girl, for that matter, needs it. We need a practical and ever-present melting pot to Americanize our citizenship. The people have been drifting apart, thinking in groups; misunderstandings, jealousies, distrust, unrest and turmoil are everywhere in evidence.

"A few months before he died, Mr. James J. Hill, the 'Empire builder of the Northwest,' told me that in his opinion we were approaching a crisis that would shake the very foundation-stones and might overturn the government. Asked for the best means to meet the situation he replied: 'Universal Obligatory Military Training.' This will bring the people together and it will keep them together; it will prove the melting pot that melts. It will stabilize civilization and will put lubrication instead of sand in the gear box of our industries.

"Our campaign is now before Congress for consideration and we want all the help we can get, not only editorial, but the writing of letters to the Congress-

men you may chance to know, and the publication of short, terse articles showing the peace value of training. Let us have the cooperation of the drillmaster and the schoolmaster to develop a sturdier, saner and united citizenship."

We have repeatedly gone on record editorially as favoring the principle of universal military training. From personal experience, in Switzerland, the present editorial writer is firmly convinced of the many advantages accruing to the young man as a result of such training. If anything, this is needed more in our country than it is in the little Swiss confederation. The population of the United States is composed of such heterogeneous elements with such different customs and habits and modes of up-bringing that some centralized agency is imperatively required to bring about the training of young men in such a manner as to imbue them thoroughly and truly with the ideals and ideas that are embodied in our constitution and the possession and manifestation of which in actual life are necessary factors for the maintenance of the American nation in its best possible development.

The Americanization of young people will, we are convinced, proceed far more easily and truly and logically if they are compelled by a beneficent government to devote a certain period of their youth to such definitely regulated duties that will teach them, first of all, obedience, which is a primary condition for the development of the ability to command; also, discipline, orderliness, and a sense of "belonging" that fills the young man with enthusiasm for the great nation of which he is a citizen.

Furthermore, recent events have shown, in defiance of convictions held hitherto, that the United States as a nation is not immune from attack by outside enemies. It, therefore, is incumbent upon us as citizens to be ready to come to the defense of our country and this can be done suitably and successfully only if we are trained appropriately and if the mechanism of such defense is established on a firm foundation.

We wish to encourage our readers to support and promote this meritorious campaign in every possible manner, especially by writing to their representatives in Congress. In order to clear up possible misunderstandings and misapprehensions as to

the propriety of universal military and vocational training, for instance, the silly, cheap bogey of "militarism," let us have some discussion, both *pro* and *con*.

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There is a sentimentality which would make it appear that in some millennial day man will not work. If some such calamity ever blights us, then man will fail and fall back. God is wise. His first and His greatest gift to man was the obligation cast upon him to labor. When he was driven out of the Garden of Eden, it was the finest, the most helpful thing that could have happened to the race.  
—Franklin K. Lane, Secretary of the Interior.

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### "WE REGRET TO ADVISE"

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Every day or so the postman hands us a letter that starts off something like this: "We regret to advise you that the price of paper for your journal will be advanced, on September first, from 6 to 8½ cents per pound." And, then, from the printer, who claims that, on account of a recent strike adjustment, he must pay his pressmen so much more an hour, which will call for a new schedule of prices for printing CLINICAL MEDICINE. And so it goes with the electrotyper, the engraver and even our own CLINICAL MEDICINE help, whose salaries have been advanced voluntarily to assist them in meeting the, now, familiar H. C. L.

CLINICAL MEDICINE always has been an expensive journal to produce. Nothing has been spared in the editorial supervision or the mechanical make-up of the journal. For the past five years, ever since that memorable August of 1914, our production costs have been advancing at an alarming rate.

There have been increases all along the line, including even the second-class postage rates. The Zone System now in effect provides for an increase every six months for the next three years. This burden is becoming unbearable, particularly in view of the fact that neither the subscription nor the advertising rates of CLINICAL MEDICINE have been advanced a penny for the last eight or ten years.

The time has arrived, however, when our own rates must be adjusted to meet our increased and still increasing expenses.

Therefore, this announcement that, on January 1, 1920, the annual subscription rate for THE AMERICAN JOURNAL OF CLINICAL MEDICINE will be advanced to \$3.00. Renewals for one, two and three years (three years for \$5.00) will, however, be



accepted at the present rate until next January.

It, therefore, behooves you, Doctor, to get in your renewal promptly and to pay in advance for two or three years, so as to protect yourself against further increases. We are making this concession out of consideration to those who have been and are now on our subscription records. The United States Post Office has ruled definitely on renewals and it will be impossible to carry our subscribers without prompt remittances.

CLINICAL MEDICINE fills a niche in medical journalism occupied by no other journal. The journal is unique in that it has always been edited from the human-interest standpoint. Every article is scanned closely before being accepted with this idea in mind: "How would this appeal to me if I were in general practice? Does this article contain practical ideas that I could use in my daily work?"

Doctor, that is what counts, practice-building ideas for everyday use. You are busy and your time for reading is limited; you must make the most of it and there is no other medical journal which will give you as much for your money as does CLINICAL MEDICINE.

Make the most of your opportunity, now, before it is too late.

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We want to interpret America in terms of fair play; in terms of the square deal. We want, in the end, to interpret America in healthier babies that have enough milk to drink. We want to interpret America in boys and girls and men and women that can read and write. We want to interpret America in better housing conditions and decent wages, in hours that will allow a father to know his own family. That is Americanization in the concrete—reduced to practical terms. This is the spirit of the Declaration of Independence put into terms that are social and economic, and I ask you to help us.

—Franklin K. Lane, Secretary of the Interior.

#### ORDER AMERICAN-MADE DRUGS

During the first year or two of the war, a great deal of industrial disturbance was caused by the fact that many, indeed, very many things for which we had depended

upon importations from Germany no longer could be had. It was especially in the production of chemicals, including numerous remedial agents that German influences had created the idea that we were absolutely dependent upon Germany for these chemicals and that, without German aid, we simply had to do without them.

Then it occurred to some people that, after all, American chemists had succeeded in learning one thing and another and had, indeed, a number of rather pretty accomplishments to their credit. The idea dawned upon us that, possibly, it might be quite feasible to manufacture certain articles ourselves but, for which we hitherto had depended upon German chemists, incidentally paying three or four times more than necessary.

In short, certain chemicals, the production of which was absolutely necessary, but, which thus far had been in the hands of German chemists, were being produced by American manufacturing chemists, partly through their own initiative and partly under the control of the Federal Alien Property Custodian. The important thing is that, now, there is not a single drug or remedy for which we have to depend upon German importation. In fact, every single remedy that any physician may wish to prescribe can be and actually is produced in our own country by our own chemists.

The moral is obvious. Let us support our own industries; let us prescribe drugs and remedies made by American firms that have never been suspected of foreign propaganda and that have loyally supported our own country through thick and thin, and expended vast sums of money in getting ready to undertake the manufacture of new products. It is distinctly up to the American physician to patronize American manufacturing chemists, if only as a matter of pride in the homeland and because of the conviction that his own country can, and does, produce everything that he needs.





# Leading Articles

## The Secondary Surgical Treatment of Chest-Wounds

By PROFESSOR TUFFIER, M. D., Paris, France

Inspector General of the Service of Sanitation of the Army.—Surgeon to the Paris Hospitals.  
Member of the Academy of Medicine.

**EDITORIAL COMMENT.**—We congratulate ourselves and the readers of CLINICAL MEDICINE upon being able to publish this original communication by Professor Tuffier who is one of the most brilliant operators among the many notable French surgeons. We had the pleasure of meeting Professor Tuffier a few years ago on the occasion of his visit to the United States. We are informed that he intends to cross the Atlantic again in the near future.

THE surgical operations necessitated by the complications that follow wounds of the chest are relatively few. I will divide them into the two following classes:

1. *Aseptic* complications, which include presence of foreign bodies, hemothorax, pulmonary sclerosis, and, ultimately, pulmonary tuberculosis;

2. *Infectious* complications, these comprising purulent pleurisy and abscess and gangrene of the lungs.

### Aseptic Complications

Foreign bodies should be extracted only after their situation has been determined and if they give rise to functional troubles that can be definitely traced to their presence.

When the foreign body is aseptic, my experience has led me to believe that many of the phenomena attributed to it really result from *pulmonary sclerosis*; so much so that, after the removal of this foreign body I have, in a great many instances, seen the functional troubles, the pain, dyspnea, and difficulty of respiration persist in exactly the same degree.

The *pulmonary sclerosis* belong to the domain of the physician; they are characterized by bronchial ecstasia, pain, and respiratory difficulty. Up to the present, I have not tried surgical intervention.

In every instance of a wound of the lung, in which even but a slight pleural

effusion has resulted, it is curious to find that the corresponding *costodiaphragmatic sinus* always is obliterated. Even after only a very slight effusion, the periphery of the diaphragm is much less mobile than its center. The obliteration of the sinus persists, and we have seen this *costodiaphragmatic symphysis* last for months.

Chronic hemothorax may present either of two forms: an extensive effusion, or a limited interlobar effusion.

As regards *extensive hemothorax*, the diagnosis is made by means of physical examination and the x-ray; successive punctures yield a reddish fluid, the distinctive characteristics of which I have defined elsewhere; they consist in its incoagulability and indefinite reproduction after the puncture. I have seen it last for twelve or fifteen months in spite of 27 punctures, with phases of slight fever, considerable debility of the patient, and without infection of any sort.

The seriousness of hemothorax arises, not only from its long duration, but, from the fact that the corresponding side of the thorax collapses, retracts, and brings about a definite deviation of the spine, with diminution of the respiratory field—the spirometer demonstrating ready dyspnea and a precarious general condition.

After a very long time, the hemothorax gives way to a probable sclerosis, as shown by the x-ray, by a considerable thickening

of the pleura; while physical examination shows a diminution of the vesicular murmur. It is generally situated posteriorly, at the base of the pleura.

I have been able to do much to render the prognosis of this condition more favorable. At present, I am treating all cases quite early, that is to say, after from seven weeks to two months, by pleurotomy—evacuation of the fluid—and wide separation of the ribs by means of my "separator," so that I can see into the cavity. If the chest-wall is immobile during respiration and very resistant to the touch, I decorticate it. If, on the contrary, the lung remains flexible, I merely open the wound, thoroughly remove all the false membranes and close the incision; whereupon the pneumothorax thus created heals definitely.

#### Limited Interlobar Hemothorax

I have encountered only one case of this. My colleague Doctor Sergeant has seen three. These patients suffer but little or not at all, but, they experience a certain amount of discomfort in the chest. The diagnosis can be made only by means of radioscopy and radiography. In all the cases that we have met, the radiographs have shown the signs of a hydatid cyst of the lung; that is, a regular spheroid tumor about the size of a large tangerine orange, absolutely delimited, with sharply defined edges, no sclerosis, no induration of the pulmonary parenchyma and no apparent lesion of its periphery.

The clearcut appearance and the regularity of this tumor led me to believe, in the case of one man, that a hydatid cyst were present, but further tests failed to verify this idea. I punctured the tumor and obtained blood that was incoagulable and having all the characteristics of old blood, both macroscopically and microscopically. I do not know how long these effusions may persist, but, certainly, longer than six months. After puncturing, the cavity collapsed to a great extent. I do not believe that the condition returned. At all events, ten days later, there had been found no fresh effusion.

It would seem that, in these cases, the effused fluid really becomes encysted and that merely its resorption is necessary to allow the lung to fill out the space occupied by the sanguinous effusion.

As to *pulmonary tuberculosis*, I have examined a limited number of cases. My

colleague Sergeant, though, has seen many, and his opinion coincides with mine; namely: that this complication is of particularly rare occurrence after wounds of the lung. It is rather the consequence of suppuration, of the stay in the hospital, of war-strain, or even of an undoubted individual predisposition.

The best proof that traumatism is not enough, in itself, to form the pathogenic factor is, that the tuberculosis often develops in the lung on the side opposite to the lesion.

I have operated in only one case, when I resected the apex of the lung; the result being completely successful, and a year having elapsed since. I followed the classical technic and had no postoperative complications.

#### Complications From Infection in Purulent Effusions of the Pleura

In a previous paper, my colleague Depage and I have described a method of treating cases of open purulent pleurisy, which was based upon the chemical disinfection of the wound, followed by closure of the incision. Since that time, many factors have gone to prove the efficiency of this method of treatment in medical purulent pleurisy and in posttraumatic surgical suppurations. Hence, it seems to us that the time now is ripe for making our work public, with a description of our operative technic and a statement of results, which now cover 47 cases.

#### A. Treatment of Pleural Suppuration in Unopened Cavity (7 Cases)

This comprises three steps; namely: pleurotomy, chemical disinfection, closure.

*1st Step: Pleurotomy.*—Two kinds of cases are to be considered, according as to whether a pneumococcal purulent pleurisy or a nonpneumococcal suppurative pleurisy is in question.

In the first, we perform simple pleurotomy in the intercostal space. The incision is made at the point where the slope is greatest in the posterior axillary line. My "separator," placed into the wound, enlarges the orifice and allows a complete evacuation of the fluid and false membranes to be made.

In the second class of cases, a thoracotomy with resection of a single rib is preferable. This permits of the complete evacuation of all pathological exudates, the visual exploration of the whole of the

pleural cavity, and examination of the lung.

The exploration of the pleural cavity is important. Its dimensions vary according to the case. Some cavities, for instance, are flattened, either transversely or antero-posteriorly. In both of these cases, the two pleural folds heal easily and the prognosis is good. Other cavities, on the other hand, show deeper recesses, which are difficult to fill. Here, also, the examination of the lung must be made with care. The following example will show how important this is:

Illuminating the cavity and examining it through the opening of a purulent pleurisy, I find the pleuropulmonary fold much thickened at one point. I incise and de-corticate this part of the pleural fold, and then find a pulmonary suppuration completely isolated from the pleural cavity.

The last part of the operation is, the insertion of Carrel tubes. Seven or eight of these tubes are placed into all the recesses, even the furthestmost, in every direction and fixed to the skin by means of a strip of adhesive plaster. In certain cases, I even have strengthened them with a silver wire, to ensure rigidity and prevent any displacement.

**2nd Step: Chemical Disinfection.**—This is effected directly, by injecting Dakin's fluid into each tube every two hours by means of the rubber bulb. The bacteriological examination, which from the first informs us as to the nature and number of the infective agents, is made by taking a swab once a day from the discharge at three points: the surface, the tract, and the deep recesses.

After a period of from nine to thirty days at the most, the pleural cavity becomes sterile and the wound is closed definitely.

**3rd Step: Closure.**—As soon as sterilization has been effected, the incision is closed by the method to be described later.

#### B. Treatment of Fistular Purulent Pleurisy (6 Medical Cases)

The purulent pleurisy has been opened, a fistula remains, and there is persistent suppuration. These cases, which should no longer occur, still are quite numerous. I, myself, have operated in 38 cases, and one of my pupils, Doctor Loubet, has collected more than 40 in his service at Nice.

When the patient arrives, the suppuration usually dates back from about six

weeks to five months; the drainage-orifice is small, the surgical wound is partly cicatrized and the general condition remains more or less precarious.

I first of all make a bacteriological examination of the discharge from swabs taken from three points: (1) the deep part of the cavity, (2) the edges of the fistula, (3) the skin near the wound.

The nature of the discharge being thus established, the treatment is instituted. It comprises three steps, as in the procedure previously described:

(1) *Débridement*<sup>1</sup> and incision of the pleural adhesions.

(2) Chemical disinfection;

(3) Closure, which here is quite different from the operative method.

**1st Step: *Débridement* and loosening of the pleural adhesions.**—After *débridement* of the wound and placing of the "separator," the pleural cavity is explored. The presence of false membranes on the surface of the lung, which is mobile, is then disclosed; they may be removed by simple rubbing. The location, number, and size of the false membranes are then seen, and, if the cavity is infected, it is only necessary to put in a series of Carrel tubes, for the purpose of disinfection.

**2nd Step: Chemical Disinfection.**—This must be carried out with extreme care. It is, unfortunately, badly borne in the case of bronchial fistulas, and the Dakin injections frequently give access to everything that should be avoided. Throughout this course of disinfection, the pulmonary inspection is kept up daily and methodically. The pleural cavity is measured by the quantity of liquid that can be injected into it, and the rise and fall of the lung is calculated very easily by the difference in the volume of the liquid that can be injected during inspiration and expiration.

As soon as the daily bacteriological examination of the secretions shows that sterilization has been effected (1 microbe or less in four different fields), I close the thoracic orifice. A little before the absolutely certain sterility of the wound, however, it is prudent to suspend the antiseptic treatment and make cultures. For this purpose, after removal of the tubes, a dry dressing is applied to the wound and maintained in position for twenty-four hours. Three successive swabs are then taken

<sup>1</sup>*Débridement* means, the division of constricting bands by means of the incision of tissue.

from the depths of the wound—from the edges and from the neighboring skin. If all three remain negative the wound is sutured.

*3rd Step: Partial or total decortication.*—Having dilated the incision in the chest-wall by means of my "separator," the false membrane is disclosed and attacked at its periphery, that is to say, at the point of union of the lung and the thoracic wall. This part of the operation is difficult to perform, and the opening of the chest-wall must be large enough to make it possible. As soon as this separation (for which I use a bistouri) is effected I take a special long spatula that I have had made for the purpose and lightly loosen the false membrane. The lung is then seen to free itself throughout the pleurocostal groove.

The pulmonary decortication is then performed, beginning at the periphery and proceeding toward the interior, either by median, transversal or longitudinal section, thus forming two divisions.

In certain cases, this dissection can be made through the length of the surface, and the lung is seen to expand out of its confinement and fill the thoracic cavity.

The decortication may be complete, the surface of the lung remaining intact—in which case, it is a matter, not of pleurectomy, but, solely of *decortication*. A slight bloody discharge and the appearance of a few bubbles of air, in certain cases, demonstrate erosion of the parenchyma.

When this decortication is not possible, the false pulmonary membrane must be removed in one piece, so far as it can be separated from the lung without too much tearing, while at other points, where it is too adherent it must be thinned down.

If *absolutely firm adhesions* are present, such as one sees in a traumatic or medical pulmonary lesion, it generally is necessary to let them alone, as interpulmonary dissection is too dangerous. In other cases, they are found in places where nothing can explain the location.

Lastly, if a bronchial fistula is discovered, this should be closed by Lambert's method.

If the pseudo-membrane of the *pleuro-parietal* fold is easily separable, it can be removed; otherwise, it may be left without causing inconvenience.

*4th Step.*—On termination of the operation, the whole of the decorticated surface, after simple compression, remains dry. The fistulous tract is resected, the fragments are made mobile, and the whole wound is closed, either by two rows of stitches, the deeper of catgut and the superficial one of silkworm, or by a single row through the skin and muscle.

If there is profuse sanguinous oozing, my suture is not complete. I then place on the surface of the lung a light gauze dressing, which absorbs and removes the blood, and I partly close the wound. The next day, I remove the dressing and tighten the temporary stitches (previously made through the pleuroparietal opening, so as to allow of discharge), and the suture is then complete.

This decortication is, as a matter of fact, Delorme's operation. The reason why it formerly succeeded so seldom was, that it was performed in a septic field, which left a fresh purulent pleurisy and a fresh false membrane. Under present conditions, the hemothorax that remains is absorbed and the lung resumes its place.

Thus, then, surgical tendencies are now exactly opposite to those that formerly prevailed; the thoracic cage no longer is placed before the lung in importance, the lung always being considered before the chest-wall. The advantages of this are considerable for the functional future of the patient; the lung resumes its normal activity, whereas, in the former methods of treatment, everything tended to destroy it.

In many cases, the sterilization of the wound was not sufficient when I operated. Another abscess formed on the wound—I opened it and healing was successful afterward. The final results are very interesting. When cicatrization is complete, one can examine the respiration by measuring each half of the thorax and by auscultating. In acute cases, the final results give a normal respiration, except at the base of the lung. The diaphragmatic costal sinus disappears. In chronic cases, the deformity of the thorax remains stationary after the treatment of the patient has begun. The respiratory capacity increases after cicatrization. The thorax on the side affected enlarges.

# Some Fundamentals in Public-Health Work

By E R. PRITCHARD, Chicago, Illinois

Secretary, Department of Health, City of Chicago.

LET'S get at it this way:

Fundamentals are of prime importance in any branch of science. The lawyer grounded in the fundamentals of law, the musician in the fundamentals of music, the physician in those of medicine, the artist in those of art or the architect in the fundamentals of his calling all are equipped for advancement, so far as their own skill and industry can take them.

So, public-health work, comparatively a new calling, has its now recognized fundamentals on which, basically, must rest efficient community-service along public-health lines. Benjamin Franklin, one of America's first philosophers, a long time ago, said that, "an ounce of prevention is worth a pound of cure." But, it was more than one hundred years before this plain, simple, basic principle was put into practice in carrying out measures for promoting and insuring community-comforts and safety.

The epigrammatic statement that the number of typhoid-deaths in a community is an index of the intelligence of that community in sanitary matters, is little more than twenty years old. But, it is now accepted as a basic truth and, in itself, formulates a new postulate for the discussion of this, the most dangerous of all the filth-diseases. It formerly was considered fitting to charge all typhoid deaths to the inscrutable will and wisdom of a Divine Providence, rather than, as is now being done, to the ignorance and cussedness of man. As a matter of fact, it was only a few years ago, comparatively speaking, when health-officers looked upon typhoid fever as a scourge beyond their means either to prevent or control. That day, happily, has passed, never to return. Towns and cities all over this broad land are abandoning the criminal idiocy that formerly prevailed when they poured their sewage-

filth into the same sources from which they obtained their water-supply.

## The Five Fundamentals of Public Sanitation

And, now, taking typhoid fever only as an example of the progress made in public-health work, I assume that it may safely be premised that, in this as well as in all other public-health activities, which have been broadened both in scope and character and increased in efficiency of administration and, therefore, in value to the people thus served, the following fundamentals have been employed. These are:

1. Information.
2. Education.
3. Publicity.
4. Cooperation.
5. Laws.

These five fundamentals are inseparable and interdependent. For example, concealed information is worthless; publicity makes it valuable. Information is also educational and upon the wise use of these agencies, will depend that cooperation by the people that renders public-health measures effective.

It is difficult to get people to conform to certain requirements in the interests of public health and comfort when they do not fully understand. Both interest and cooperation are stimulated by the knowledge of why certain things are a menace to public safety.

When a citizen understands fully the direct and important connections between a pile of stable-refuse and the swarms of disease-breeding house-flies that torment both him and his family, he is only the more willing to comply with a notice served admonishing him to remove the cause of his trouble. But, when he has also learned that the fly carries the germs of many dangerous diseases and in this way causes sickness and death, he can easily be enlisted to give his time and



money to rid his neighborhood of flies and thus protect the health of his own and his neighbors' families.

#### Gaining Support of the Public

In order, then, for the public-health official to gain the intelligent cooperation of the citizen, he must show him why cooperation is necessary. In other words, the health-officer must inform and educate those people who, conceding that they need his services, have no clearly defined conception of his duties and responsibilities and still less as to their own. If you met a man on the street and handed him a pedometer, assuming that he had never seen an instrument of this kind, he would most likely turn it over in his hand and in a mildly interested way say, "I don't want it, what's it for?" but after you have explained that, properly adjusted to his stride, the pedometer will tell him how many miles he walks every day, you have educated him as to the use and value of the mechanism, and then he will accept it gladly and thank you for having told him about it. But, suppose you had only shown him the instrument and left him in the dark as to its use, he would be no wiser and you would only have wasted your time. So, I am again moved to say that concealed information is not worth a continental to anybody.

The late Dr. Frank W. Reilly, for many years Assisant Commissioner of Health of Chicago, and who sometimes was rightly called "Chicago's most useful citizen," may be said to be the father of publicity and education as important factors in public-health work. Doctor Reilly had been for several years the managing editor of one of Chicago's leading dailies. It was in that capacity that he discovered the value of a "health-story" from a purely news-standpoint. He found out that health-information has a distinctive news-value; that the people, or at least a large percentage of them, wanted to know about the things that cause needless and, therefore, preventable sickness and death among them. It was along these lines that, more than twenty years ago, he wrote, published, and had widely circulated for the Chicago Department of Health the pamphlet "Summer Care of Babies". This valuable little publication was among the first, if not the first, pub-

lication of its kind ever issued by a department of health in this country.

Here was the trained newspaper-man, who was also a skilled physician and sanitarian, instinctively recognizing publicity and education as fundamental aids to the successful prosecution of public-health work. Doctor Reilly recognized the importance of letting the mothers of Chicago know why their babies sickened and died and the things that could be done to save them. And, so, this wise advocate of public sanitation created the "health-story" and made it news. And, in doing this, he set in motion the agencies that have saved the lives of thousands of babies in Chicago and stimulated the health-officials of other cities to follow his lead.

I have not deemed it necessary to discuss, in this article, the achievements in medical science that have made it possible for the public-health officials to do real effective work in protecting community-health. These discoveries and achievements range all the way from Jenner's discovery of vaccination for smallpox down to the discovery and use of toxin-antitoxin as a prophylactic against diphtheria, not forgetting the work done by Read in indicting and capturing the *stegomyia* mosquito as the agency by which yellow-fever was transmitted and spread throughout the south. But, it must not be forgotten that, in all these wonderful aids in public-health work, publicity and education have been the means through which they have been made valuable in saving human lives.

#### Medical Science Made Possible the Panama Canal

The Panama Canal, a triumph of modern engineering-skill, is not so much a tribute to the noble profession of engineering as it is one of the crowning achievements of medical science. For, without it, the Panama Canal would not be in existence today. France tried to build a water way across the Isthmus, but, despite engineering skill and abundant financial means, the mosquito (the *anopheles* and the *stegomyia*) turned all attempts into complete and bitter defeat. But, with the full and general promulgation—the general exploitation, if you please—of the information concerning the deadly character of the mosquito, Uncle

Sam accomplished the task; and, while he was at it, the death rate in the Canal Zone was as low as, if not lower than, it was in the City of Chicago. So, once more let me emphasize the worthlessness of pentup and carefully concealed information.

#### Winning Over the Dairy-Farmers

Now as to cooperation. Twenty years of service, over half of which has been spent in the publicity and educational side of public-health work, have convinced me that cooperation on the part of the public must depend almost entirely upon the full and complete understanding which the public has of what its health-officials are trying to accomplish. Let me illustrate this point.

Some fifteen years or more ago, when the Department of Health first sent its dairy inspectors into the dairy-regions from which Chicago gets the 300,000 gallons or more of milk which its people consume every day in the year, the dairy-farmers, naturally, resented this inspection as an unwarranted invasion of territory over which the City of Chicago had no legal jurisdiction whatever. But, when these same farmers were enlightened on the fact that it was up to themselves to produce milk as good as the money they received for it; that Chicago controlled its own market; when finally they were educated up to the point where they could see that the milk-standard as to purity and excellence should compare favorably with the money-standard; and, finally, when they realized that the dairy-inspectors were there to help them to produce a clean, safe milk, in exchange for clean, safe money, it became easier sledding for the dairy-inspector and more profitable for the farmer, who was willing to be enlightened and to fall in with the new and better methods of handling the products of his farm. Here was another instance where the exploitation of the right kind of information brought good results, and which had a direct and important bearing upon the health and lives of thousands of Chicago's babies.

And also another instance wherein the same information or knowledge, had it been kept under cover, would have amounted to nothing. Hostility changed to friendliness; opposition, stubborn and unreasonable, changed to cooperation,

splendid and even aggressive in character; and all this brought about by the right application of a few simple fundamentals.

Lastly, because least in importance, laws. I say least, for the reason that the longer I have been in public-health work, the less faith I have in penal health-statutes. Not, that I advocate their abolishment, for, there always are the few cases in which nothing else seems to produce the desired results. But, even health-ordinances should be enforced along the lines of common sense and common justice. Publicity and education have done a thousandfold more in suppressing indiscriminate spitting in public places than have all the antisputting ordinances put together. True, the ordinance is a small help in enforcement, but, it does not compare with an enlightened public sentiment based upon, and created by, actual knowledge as to the real and distinct menace to public health because of this disgusting and dangerous habit.

Still, there is the need for sane legislation on health-matters; but, that, after all, only is intended for emergency-use when other and more reasonable methods have failed. The *Bulletin* of the Chicago Department of Health has, for many years, carried as its motto this sentence from the Earl of Derby, "Sanitary instruction is even more important than sanitary legislation". And it is upon this fundamental fact, as well as upon my years of experience and observation, that I do not and can not accord more than a secondary importance to health-laws as compared with the other fundamental aids to efficient public-health work that have been mentioned.

The successful health official will seek to make use of every available means for informing and educating on health-matters the people he serves. To do this, he should not be averse to the daily interview with the newspapers of his town on health-topics. He should be able to dish up "health-news", and, in a form that the newspapers will print and the public will read and profit thereby.

The present Commissioner of Health has sometimes been accused of seeking notoriety through the columns of the daily press. In my judgment, the charge is not well founded. But, were he to be accused of using the newspapers to the limit for

spreading information on any and all matters having a bearing upon public health, comfort, and safety, I, for one, sitting as a juror should find him guilty without leaving the jury-room.

Next to the newspapers as aids in publicity and educational work, should be classed the schoolteachers, their pupils and the clergy; then add to these the social, re-

ligious, and civic organizations, and you will have a pretty-well-organized force to be used in formulating the right sort of opinions about health-matters and for carrying out in a prompt and effective way such measures as may be devised for proper health-protection; and, in fact, covering most, if not all, of the activities that make for community comfort and safety.

## Digest of Lectures on Feet\*

Delivered in the School of Orthopedic Surgery, Camp Greenleaf, Georgia

By Sergt. First Class, P. COSMAN, Med. Dept., U. S. A.

Chiropodist to U. S. A. General Hospital, Denver, Colorado.

**A**MONG the most instructive clinics at Camp Greenleaf, Georgia, were those held under Maj. Edwin W. Ryerson, M. C., (Chief of the School of Orthopedic Surgery), Capt. W. J. Merrill, M. C., Capt. J. Kutz, M. C., not to mention others.

In this survey, I wish to give a digest of the most salient points discussed; not as given in individual clinics, but, picked at random. Credit belongs to all those officers, so, I will combine their lectures and record that which seemed most important.

In civil life, many foot-ailments are looked upon as trivial, but, their importance in the army is such that, if not corrected, serious trouble will follow. If a soldier is suffering pain from a corn, fissure, blister and such, he will limp and pick his way the best he can. He will disturb the cadence of the marching column and the rhythm of his marching unit. He is using up his energies by extra strain, and becomes a disquieting factor; his morale is altered, and finally he falls out of line.

It is a well-known fact that the functions of the organs are very much influenced by the reactions produced by mental agony because of painful feet; also, that many other conditions found in the feet are the direct results of infections far away from the point of manifestation. In those cases, the dentist and the laryngologist will find a reason why men complain about rheu-

matism in the feet or why there are motor disturbances in the limbs of an apparently healthy subject.

### Anatomical Considerations

The normal foot is a complex structure, capable of a great variety of movements. When the two feet are brought together in a parallel position, they form a dome, with the two scaphoid bones as the highest point.

A line drawn from the middle of the heel through the middle of the big toe (Meyer's line) runs under the longitudinal arch and passes through the massive parts of the foot that are intended for propulsion. (Fig. 1). The heavy first metatarsal bone and the phalanges of the first toe point to this, in contrast with the smaller metatarsals and phalanges of the other toes, which are rather for weight-bearing.

All segments of the foot are interdependent with each other and, if one of them is out of order, its complementing segment will likewise be affected. This is the reason why minor ailments, such as corns, abrasions, blisters, ingrown nails, may completely overthrow the physical and physiological balance of the foot-structures and so incapacitate and completely alter the disposition of the person.

Anatomically, functionally, and mechanically, the longitudinal arch is composed of the os calcis, astragalus, scaphoid, cuneiform bones, their metatarsal bones and corresponding phalanges. The forefoot (the structure anterior to the metatarsal

\*Paper read before the Staff of U. S. General Hospital No. 16, New Haven, Conn., on July 19, 1919.

joint) is made up of segments. The inner three segments are each composed of a cuneiform bone, a metatarsal bone and their corresponding phalangeal bones.

Arches must be considered for the case in hand, since the height of the arch is not commensurate with the condition known as flatfoot. The normal longitudinal arch has as its highest point the scaphoid bone. A low arch is of import only when it is associated with dorsal flexion of the toes, contracted toes, hallux valgus, abduction of the forefoot, rigid joints, deformed toes, supination, pronation, tenderness, and pain under the distal ends of the metatarsal bones, downward

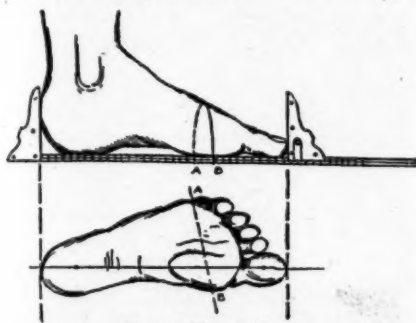


Fig. 1. Meyer's Line.

and inward position of the scaphoid, arthritis, edema, and practically all other changes in the foot-structures, particularly so when present in connection with outward rotation of the limbs.

To properly inspect a foot, we should first notice its relationship to the leg; secondly, how the foot acts under stress (weight-bearing). Next the condition of the skin is of importance; its color if white, red, cyanotic, blanched, tense or flaccid; whether it is moist, dry, cold, hot, atrophied, or edematous; the conditions of the joints, if stiff, loose swollen; if they contain fluid, or if crepitus is present; whether deposits, exostoses, tenderness or pain under pressure or if there is evidence of previous traumas. Furthermore, corns, calluses, ingrown or hypertrophied nails, particularly in possible relationship to Raynaud's disease, tenosynovitis, tuberculous or otherwise, old sprains, or possible Köhler's disease of the scaphoid.

#### Posture

The strain upon the foot-structures is decidedly less under conditions of good

posture of the body as well as of the feet. The increase of the strain caused by abnormal posture varies directly with the angle of deviation. Malposture of the trunk or head, which imparts abnormal stress upon the lower extremities, transmits strain to the weight-bearing support of the feet. Forward position of the head, with chin forward, favors increase of the thoracic curve and forward position of the shoulder-girdle; these positions favoring flattening of the lumbar spine and backward rotation of the pelvis; while the latter movement favors outward rotation of the lower extremities, bent knees, and the "toeing" out position of the feet. This posture of the body and feet throws a cross inward strain on the midtarsal, both in standing and walking, but, especially in walking, and tends to produce pronation and flattening. If the head be held erect, chin in, feet parallel, the tendency for the shoulder-girdle is, to move backward, the thoracic and lumbar curves to approach the normal, the pelvis to rotate forward and the lower extremities inward, and the knees to become straight. The rule is, to let the divergence of feet be 45 degrees in standing and parallel in walking, effort being made to bear weight upon the outer border of the feet.

The extrinsic and intrinsic muscles maintain the posture of the foot, chiefly, while the ligaments act as stabilizers of the bones. The toes should be straight, flat, and freely flexible. The axis of the great toe should fall within Meyer's line. This line is drawn from the center of the tuberosity of the os calcis to the center of the ball of the great toe and should be parallel with a straight edge placed on the inner side of the heel and ball of the great toe and coincident with the axis of the great toe.

The plane of weight-bearing for the lower extremity and foot in standing should be: in general, through the head of the femur, center of the knee-joint, center of the ankle-joint, inner third of the os calcis and axis of the great toe. The oscillating motion of walking varies the relationship of the plane of weight-bearing and supporting structures. The spread of the toes is, to give lateral support.

The posture of the feet should be accurately determined, since any slight variation may indicate some existing or potential structural or functional disorder, which

may cripple the man or make him helpless when his feet are subjected to greater or unaccustomed strain.

### Examination

Examine the functioning of the feet in the following manner:

The patient should assume a normal posture, feet parallel and head up. (A) Feet on floor, flex toes dorsally. (B) Raise on



Well arched but weak feet.  
N. B. Notice length of forefoot.

heels. (C) Raise on toes. (D) Supinate both feet and flex toes. (E) Half-squat, without lifting heels off the floor, to test the tendo achillis. (F) Examine the walk, or the run, if possible. (G) Take heel in hand and gently test all ranges of movement, passively.

It is important to note whether any pain is in the foot itself, or referred to from above, whether it is coincident with use, subsides with rest or persists after rest, especially upon rising. Whether the pain in the tendons and ligaments is associated with pain in the muscles or coincident with constitutional conditions and focal infections. Dorsal flexion less than 90 degrees may be owing to muscular, ligamentous arthritis, neurological conditions, malformations or deformities, improper footwear or to misuse of the feet. Limitation of motion and muscle control may be a consequence of lack of muscle training. Pronation and abduction may result from bad habits in standing or walking.

Very important it is to observe whether there is a relationship between a given foot defect and other conditions. A considerable degree of flat foot and hallus valgus may not be significant or disabling, unless associated with one or more other abnormalities contributing to the disability.

This applies also to pronation abduction, and so on.

Most pedal affections may be classified as follows:

- |                       |                      |
|-----------------------|----------------------|
| 1. Weak feet.         | 1. Musclebound feet. |
| 2. Flaccid flat feet. | 2. Contracted feet.  |
|                       | 3. Rigid feet.       |
|                       | 4. Spastic feet      |
|                       | 5. Clawfeet          |
|                       | (First degree).      |
|                       | (Second degree).     |
|                       | (Third degree).      |

Weak Feet: Symptoms: pain, tenderness, fatigue after little use. Marked inability to perform the functions, pronation and slight flattening, outward rotation of one or both legs, also bilateral swelling about the ankles, due to overweight but is only found in heavy people having weak feet. Strapping of the arch, massage and arch supports may relieve; sometimes excision of the swollen tissues is resorted to.

Flaccid Flat Feet: Symptoms: Very low and flat forefoot, much abduction of forefoot, inclusive of toes, scaphoid prom-



Same foot in flexed position. Notice strain in first metatarsal phalangeal region.

inent, heavy gait, functions respond well. Treatment for above named conditions is practically the same as far as mechanical means go. An extension or Thomas heel is put under the shoe, also an inner wedge from the posterior point of the



heel to the joints of the first, second, third and fourth metatarsals and toes. Care should be taken not to extend this wedge to the fifth toe. As this process is extended to supinate the foot, and the fifth toe is a weight bearing one, this toe must rest down on the ground. Rest, massage, alternative baths (hot and cold) or baking will greatly improve and benefit those conditions.

Some of the exercises to relieve weak



Flaccid flatfeet.

muscles are with or without weightbearing:

I. Half squat; arms at side, body erect, feet parallel and squarely on the ground, knees bent to angle of 45 degrees.

II. Deep knee-bend, body and feet in position of (a) hands on hip, raise sharply on ball of feet, (b) body erect, bend knees until buttocks rest on heels. (c) Still bearing weight on ball of feet, straighten knees. (d) Heels on ground.

III. 1 (a) Feet flat on ground and parallel dorsally. Flex toes. (b) Flex them sharply to the ground.

2. (a) raise on heels. (b) Plantarly flex toes. (c) Dorsally flex toes. (d) Feet to ground.

IV. (a) Supinate feet to outer border, feet parallel. (b) Plantarly flex toes. (c) Dorsally flex toes. (d) Feet flat on ground.

V. Walk on outer border of feet (supination), with toes sharply plantarly flexed.

VI. Body erect, knees straight, feet

firmly on ground and parallel. (a) Raise right leg to angle of 45 degrees, plantarly flex foot and toes with inversion of leg and foot (b) Raise on ball of left foot, left leg straight. (c) Ball of right foot to ground, right in front of left foot, bearing weight on balls of both feet. (d) Right heel to ground. Repeat alternately left and right.

Musclebound feet result from muscle weakness, excessive strain, also infectious and toxic myositis, by producing tonic spasms and contracture of the gastrocnemius, soleus, perineus longus and brevis, posterior tibial, the long flexors and extensors of the toes. Proper shoes, rest, massage, manipulations, local applications, and contrast baths are indicated to correct these conditions.

Contracted feet are similar to musclebound ones, but, contraction of the plantar fascia may be present. Radical treatment may be necessary and call for tenoplasty, with stretching to the limit of toleration.



Flaccid flatfeet. Plantar aspect.

Rigid feet are result of toxic or infectious arthritis, or osteoarthritis, induced by a strain. Gonorrhoea is mostly the cause. The foot is rigid, flat, and pronated, often swollen around the internal

malleoli, severe pain and limited motions. Palliative treatments, to alleviate pain, are indicated, also careful inspection of teeth and tonsils. If conditions persist, it is better to produce deep anesthesia and then relax the muscles, manipulating till flexible, then put in plaster cast for two weeks or a month.

Spastic feet are owing to contraction of the peroneous longus and brevis. The foot is in pronated position and can not be supinated. This may be because of trauma, inflammation or neurological conditions. Tenoplasty of the peronei should be done; sufficient lengthening being made to permit free supination. After removal of the cast,

sometimes fourth and fifth toes are contracted.

First degree, third type: All the toes are contracted. To test: by raising the heads of the metatarsals, the toes straighten; but, a contracture of the midphalangeal joints manifests itself and the slight cavus remains. There is loss of function, muscle pain and tenderness under the ball of the foot, and corns and callosities are present. All contracted tendons stand out and there is much muscle spasm. Palliative treat-



Varicose veins and third degree flaccid flatfeet. Notice scaphoid resting on the floor.

palliative measures must be taken, to straighten and increase mobility.

Clawfeet are classified according to three degrees:

First degree, first type: The big toe is contracted, but if the head of the metatarsal is raised, the toe tends to straighten. The forefoot is dropped and there is a slight contracture of the plantar fascia. The smaller toes are not affected.

First degree, second type: The big toe is not affected, but, the second, third, and



Third degree flatfoot; rigid type. Notice prominent scaphoid (Köhler's disease).

ment may relieve the pain somewhat when the calluses are constantly being removed; however, surgical intervention alone will effect a cure.

Second degree: Symptoms are more se-



Clawfoot. First degree—second type.

vere, and there is equinus and cavus, also varus of the os calcis.

Third degree: Vasomotor trophic changes take place. Toes are blue and marked equinus and cavus are present. Tenoplast-

ics of contracted tendons are necessary and sometimes amputation of the toes has to be resorted to.

**Acute footstrain:** This is a condition in which the muscles are in a state of hyper-irritability after walking or standing for a long time, and persists even when resting. There is marked loss of function, spasmodic pain, dull or heavy ache, some swelling, increased local temperature, and excessive tenderness. Rest in a recumbent position is the first requisite. Strapping of the arches in an exaggerated supinated position will sometimes relieve. Then the ankles are strapped with adhesive plaster strips.

Chronic footstrain is of a somewhat different type. Pain is experienced in the



Hyperidrosis with hypertrophied skin. Callosities under fifth metatarsal.

muscles of the calves along the tendons at their attachment, also of the ligaments. There is pain in the knees, hips, and lower spine, resulting from altered posture. The pain is likely to be more severe at the end of the day, and, after a night's rest, the patient complains of stiff legs that limber up again only after a few hours' use, but, also, the pain recurs. Properly fitted arch-supports, to correct the posture, will be of great help, in addition to the treatment given in the acute condition.

**Köhler's disease** is a condition of which the origin is unknown. It is limited to the scaphoid bone alone. The bone is laterally more or less enlarged and anteroposteriorly shortened. It is largely mistaken for flat foot, but, the customary position of that condition is not always present. A

properly fitted arch-support usually will relieve any painful feeling, if present.

**Tuberculous Tenosynovitis:** When a tendon-sheet is constantly swollen and increases in size, it is suggestive of tuberculous trouble. Excision of the sheet ordinarily will effect a cure.

#### About Shoes

Now a few words about shoe fitting. When one looks at the inside of a shoe and finds there a profusion of numbers, one is rather bewildered as to what they mean. Shoes are marked according to their width and length. Men's sizes run from No. 5 to 12, or even higher. The widths are A, B, C, D, E and EE, but, most shoe-manufacturers mark the widths also in numbers. A being represented by 1, B by 2, C equaling 3, D equaling 4, E equaling 5, and EE being represented by 55. When a shoe is marked 3754241, it means that the first number (3) stands for C, or, in other words, the width of the shoe. The next number, 75, represents size  $7\frac{1}{2}$ ; also, often, this half-size is marked by a dash (—).

This second number equals the length of the shoe, in this case,  $7\frac{1}{2}$ . The rest of this long figure is the manufacturer's stock-number. Take, for instance, number 55 5555, this would mean EE width,  $5\frac{1}{2}$  length, and the four remaining fives, are the stock-number. It is necessary to know this, because a shoe salesman in a store is there to make a sale, and, if he has not your size, he will give you something else; then, if one does not understand those numbers, you simply have to take his word for it. This is one of the reasons why so many people have foot troubles.

Another fallacy in measuring a foot in the shoestore is, to put the foot on a little inclined bench, when the salesman takes the foot measure. One ought to realize that in this position, the foot is relaxed. The proper way to measure is, to set the foot flat upon the floor, with the full weight applied. Then we get the right length and width. The difference between the relaxed and the weighted position often is marked, as much as two sizes difference.

In making shoes, there is no standard to determine the width, in inches, of the first size, or No. 5. Each A width above the 5 A increases by  $\frac{1}{12}$  of an inch (measurement represented by each letter). Thus, a 5 B is of the same width as a  $5\frac{1}{2}$  A.

Shoe lasts are built according to an average of measurements of many feet, and the

width and shape are determined from anatomical and functional considerations. The length of standard size 5 is 10 inches. From this, the length can be determined by a tape measure or rule, and, knowing that each length is 1-3 of an inch, and each width is 1-12 of an inch, an exact size can easily be figured out.

One foot usually is larger and longer than the other, so it is best to measure the larger one. Use only socks worn during the season, because a light or heavy sock will change the width of the foot. Place the foot on a foot-measure, the heel against the posterior upright, bear the full weight down and move the anterior sliding upright to the tip of the longest toe (sometimes the big toe. (See picture). Notice the number and add two numbers to it. This will give the right length.

For instance, the foot measures, on the foot-rule, 8, that means that the proper shoe size is number 10. This gives sufficient room for the toes and avoids rubbing and pressure. To give the right width, a tape measure is placed under the ball of the foot and full pressure is applied. The tape is brought up over the ball at the mid-point of the metatarsal phalangeal joints

of the first and fifth toe, and drawn close, not tight. The measure is noted. When, for instance, this measures 9 7-8 inches, and the length is 10 (see size column), then the proper size is, 10 E.

To test the length, press with forefinger (if width of the forefinger is equal to two sizes) crosswise downward in front of the big toe; if one side of the finger is against the toe and the other side flush with the tip of the upper, the length is correct. To test the width, with thumb and forefinger, grasp the upper over the ball of the first and fifth toes, press inwardly and slide the thumb and finger together toward the middle of the upper. If it bulges slightly, and can be felt between the thumb and finger, but can not be grasped, the width is correct. If the upper can be grasped, the shoe is too wide. If the upper is tight and does not bulge, it is too narrow. If size and width, according to measure, are incorrect, try on shoes of the next half-size or width indicated by the error.

If a shoe of correct size is too wide in the heel or too wide above the malleoli, the insertion of a piece of felt in the heel or under the tongue of the shoe will correct this to satisfaction.

FROM CIRCULAR No. 10, QUARTERMASTER GENERAL'S OFFICE, APRIL 6, 1912.

Sizes of Regulation U. S. Army Shoe.

Widths	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12
A Ball	7⅞	7¾	7⅞	8	8½	8¼	8⅝	8½	8⅝	8¾	8⅞	9	9½	9¼	9⅝
Waist	7⅞	7⅞	8	8½	8½	8⅝	8⅝	8⅝	8⅝	8¾	8⅞	9	9½	9¼	9⅝
Instep	8¼	8⅝	8½	8⅝	8⅝	8⅝	8⅝	8⅝	8⅝	8¾	8⅞	9	9½	9¼	9⅝
Length	10	10½	10½	10½	10½	10½	11	11½	11½	11½	11½	11½	12	12½	12½
B Ball	7⅞	8	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Waist	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Instep	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Length	10	10½	10½	10½	10½	10½	11	11½	11½	11½	11½	11½	12	12½	12½
C Ball	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Waist	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Instep	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Length	10	10½	10½	10½	10½	10½	11	11½	11½	11½	11½	11½	12	12½	12½
D Ball	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Waist	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Instep	9	9½	9½	9½	9½	9½	9½	9½	9½	9½	10	10½	10½	10½	10½
Length	10	10½	10½	10½	10½	10½	11	11½	11½	11½	11½	11½	12	12½	12½
E Ball	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Waist	8½	8½	8½	8½	8½	8½	8½	8½	8½	8½	9	9½	9½	9½	9½
Instep	9½	9½	9½	9½	9½	9½	9½	9½	9½	9½	10½	10½	10½	10½	10½
Length	10	10½	10½	10½	10½	10½	11	11½	11½	11½	11½	11½	12	12½	12½
EE Ball	8½	9	9½	9½	9½	9½	9½	9½	9½	9½	10	10½	10½	10½	10½
Waist	9½	9½	9½	9½	9½	9½	9½	9½	9½	9½	10½	10½	10½	10½	10½
Instep	9½	9½	9½	9½	9½	9½	9½	9½	9½	9½	10½	10½	10½	10½	10½
Length	10	10½	10½	10½	10½	10½	11	11½	11½	11½	11½	11½	12	12½	12½



# After Thirty Years—XVII

## Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

### A Little Learning Is a Dangerous Thing

THERE is a form of mental aberration—if we may call it such—in which the person attempting to use a certain word utters, not the word intended, but one that resembles it somewhat. Sometimes the resemblance is so slight or vague that it would be difficult to say just in what it consists. But, it seems that, in the mind of the individual prone to this error of expression there is some kind of unconscious cerebration that either sees a resemblance between the two words, or else, in some way, associates the one with the other. For example, a person intending to say "Toledo" may say "Cleveland," without being aware of the error, either at the time or afterward. Of course, any person will occasionally make such a mistake. Here, however, I am referring only to those persons with whom it is a habit or, may we say? a disease. I have encountered it most frequently in people that are mentally peculiar—it would, perhaps, be unjust to say, unbalanced. I have never seen or heard a name\* for this mental failing, and I am not enough of a Greek scholar to devise one.

Ordinarily this error results in nothing worse than a misunderstanding, perhaps followed by a controversy in which the hearers assert that one thing was said, while the speaker is equally positive that it was something different. But, sometimes the consequences are more serious.

Many years ago, such a mistake resulted in a tragedy in which I, myself, was one of the minor actors. Since all the others are dead, I can tell the story without violating any confidence or awakening painful memories. While the names used are all fictitious, the story, in every other respect, is not fiction, but, gives actual facts.

John Carson, then, was a medical student approaching middle life, not brilliant,

but, honest and plodding. He was ambitious to make something of himself; but his poverty compelled him to alternate his periods of study with intervals of work, in order to earn a livelihood. His wife was a kindly, faithful creature, completely wrapped up in her husband. Her whole life, her every thought seemed to be concentrated upon his career, and she sacrificed herself in every possible way so as to help him; not only by earning money, but, by studying with him and hearing him recite. She was looking forward, with all the enthusiasm of her heart, to the day when he should be graduated and a new life should be open to them both.

There was not much that she could do in the way of earning money, for, she was even less brilliant than he and had neither the education nor the initiative to become a stenographer, bookkeeper or even a saleswoman. She tried to take in sewing and to help at housekeeping in the homes of people desirous of hiring help by the day. But, at this, the husband drew the line. She might do her own housekeeping and sewing, but, when it came to doing these things for other people he put his foot down. So far as helping him in his studies was concerned, I do not imagine that it amounted to very much; for, her education and mental calibre were such that she could do little more than hold a textbook while he recited. Yet, the fact that she did that much created in her mind the delusion that she knew considerable about medicine, and it was this delusion that was indirectly responsible for the tragedy which I am about to relate.

She was subject to the failing referred to at the start, namely, of using one technical term when she meant another that resembled it in sound or in some way was associated with it in her mind. She was not a Mrs. Malaprop or a Mrs. Partington, mangling the names of things; she did know the correct names, but, unconsciously substituted the wrong ones. In

\*This peculiarity of expression is known as heterophasia, heterophemia, or heterolalia, according to Dorland's "Medical Dictionary."—Ed.



conversation with her, I had frequently observed this failing, but, had never imagined that it would lead up to a tragic result.

The ambitious pair had come to Chicago from some country place, in the hope that here the opportunities for finding employment would be better. They had no friends in the city, except a certain Doctor Bly, who, I believe, was a distant relative. They two were very much attached to this Doctor Bly, and he, in turn, appeared to entertain for them a high regard, tinged with sympathy for their hard struggle and their ambition to work out a career.

As Doctor Bly resided at some distance, while I lived quite near to them, they called me, on one occasion, to prescribe for Mr. Carson for some minor ailment. They were very grateful and appreciative of all that I did for them, and I, in turn, rather liked them for their evident sincerity of character and felt a strong sympathy with their efforts at self-improvement.

In forming friendships, I have always believed in the principle that sincerity of character is the chief thing to look for; and that, where that is found, one can afford to overlook such minor matters as lack of brilliancy, personal oddities, or even little faults and vanities such as most people are burdened with. I have always said that, if we wait for perfect people in selecting our friends, we shall go through life without finding any. So, as I came to know the Carsons better, my regard for them increased.

They lived, of necessity, in a cheap neighborhood, among people of the humbler working-class. These neighbors soon discovered that the husband was a medical student and so, often consulted him in their little ailments. In those days, the medical-practice act was but loosely enforced, and unlicensed doctors were much more common than at present; so, Student Carson gradually accumulated a modest stock of drugs of the simpler kind, and occasionally treated the neighbors when urged by them, although he frankly told them that he was not a graduate, and never charged a fee. But, they nearly always voluntarily paid him something out of their scanty means. I think that he never dispensed a drug without first dis-

cussing its safety either with the corner-druggist, Doctor Bly or myself.

One evening, Mrs. Carson called me at about 10 o'clock, asking that I call to see her husband. She told me that, about an hour before, she had given him 10 grains of quinine for a cold, but that it seemed to have made him very nervous and that she felt a little puzzled. I found him, as she had said, very nervous. He said he felt as if he were to fly to pieces; he was very wide-awake and had some muscular twitching. His pulse was a little irregular and his temperature about a degree above normal. He had not a single one of the characteristic symptoms of morphine poisoning, and, consequently, the possibility of that did not enter my mind. The pupils were a little dilated, the breathing was normal, and the face somewhat paler than normally. I had known large doses of quinine to produce great nervousness, so, I thought nothing special of it. He requested me to give him a hypodermic of morphine in order to put him to sleep; but I told him that the nervous effects of quinine were best controlled with bromides. He acquiesced and, so, I gave him a good dose of potassium bromide and went home.

At about 2 o'clock in the night, Mrs. Carson called me again and said that she could not wake her husband. She said that he had gone to sleep soon after I left, and she had done the same. When she awoke, she heard him breathing heavily, and, finding that she could not arouse him, she became alarmed and called me. I hurried over and at the first glance, recognized a complete picture of morphine-poisoning. There were the pinhole-pupils, the cyanosed face, the extremely slow, stertorous breathing, the slow and feeble pulse. All the symptoms were intense and the case looked hopeless.

Mrs. Carson once had seen a friend die from apoplexy, and her first question was whether it did not look like that. I knew that there had been a terrible mistake somewhere, so, I did not mention morphine, and parried her question with the answer, "Yes, or congestion of the brain." I asked that she show me the quinine, which she said, she had bought at the drug store that evening. She brought me a bottle containing a white powder. It was a

vial of the kind in which druggists get one-eighth ounce of morphine, from the jobber, and it bore the scarlet morphine-label with the skull and cross-bones. I said: "Why, this is labeled morphine!" Then she explained that the druggist, from whom she bought the quinine, had put the powder into an empty morphine-bottle, as a matter of convenience to her, and had called her attention to the discrepancy in the label. I thought it incredible that the druggist should let a drug go out thus incorrectly labeled, but, I said nothing just then.

Making an excuse to go to the kitchen, I dropped a little of the powder into water. It dissolved promptly, proving that it was not quinine. I felt certain that it was too late to avert a tragedy. So, I told Mrs. Carson that I was going out to call Doctor Bly, and then I should go home to get something that I needed. I wanted a stomach-tube, although it did seem too late to do any good. When I got back, I saw Doctor Bly coming and, just as he arrived Mr. Carson died.

I took the doctor aside and told him all that I knew. He insisted that we should not tell Mrs. Carson that she had unwittingly killed her husband. Knowing her, as he did, he felt certain that the shock would result either in death or insanity.

We left her under the impression that the cause of death had been cerebral hemorrhage, and then went to see what the druggist had to say. The latter told us that Mrs. Carson had asked for 20 grains of morphine. When he remarked that that was a good deal, she had replied: "Oh, you know my husband is a medical student and knows all about drugs. He sometimes prescribes for the neighbors." Knowing this to be a fact, he had made no further objection, but, had put the drug into an empty morphine-bottle and called her attention to the fact. She evidently believed that she had asked for quinine and understood the druggist to mean that he was calling her attention to the discrepancy between the label and the contents of the bottle.

She was not bright enough to see that no druggist would let a drug go out incorrectly labeled. She had gone home and given her husband half of the 20 grains of morphine. The enormous dose appar-

ently had so overwhelmed the stomach that, at first there was a temporary paralysis of absorption, and, so, the true signs of morphine-poisoning had not set in at the time of my first visit. I could the more readily believe the druggist's statement, that the woman had asked for morphine, because of the fact that during the night she had made the same mistake in conversation with me, confusing the two names.

We then went to see the coroner, because, if an inquest was held, it would be impossible to keep from the wife the knowledge that she had killed her husband. Doctor Bly was strongly of the opinion that this should be done, as he felt morally certain that any suspicion that she had done it intentionally was quite out of the question. The doctor had known them both from childhood, and felt certain that her complete devotion to her husband was unfeigned. There was no possibility of another man in the case, and she had nothing to gain and everything to lose by her husband's death. She was left alone in the world, without a friend or relative, and no way of living except by hard and poorly paid work. In view of all these facts, I was inclined to agree with the doctor's reasoning.

The coroner was personally known to both of us and gave us an attentive hearing. He questioned us closely as to the possibility of the woman having had a motive for getting rid of her husband; but, when he had heard all the facts, he expressed himself satisfied that the affair had been an accident and that it would be an act of mercy to keep the widow from learning the truth. Said he: "I am willing to help you to this extent, that I will waive the necessity for an inquest, provided that you will lay all the facts, just as you have given them to me, before the Commissioner of Health. If he is willing to accept acute cerebral congestion as the cause of death, that will end the matter. There is, I believe, brain congestion in opium-poisoning, so you will be telling the truth, although not the whole truth."

The coroner and the Commissioner of Health were at that time of opposite political parties, hence, were mutually a little shy of each other. For this reason, the coroner cautioned us to be tactful in our

interview with the commissioner and to make it clear that he (the coroner) was entirely willing to abide by any decision that he (the commissioner) **might make**. We found the latter in much the same attitude as the coroner; he was willing to stretch a point, for the sake of the widow, but, he hesitated about giving a political opponent a chance to accuse him of failing to do his official duty. We suggested that it was an even break between them—that he had as much of a hold upon the coroner as the latter had upon him; that there were only five of us in the secret, and that we all had a common interest in keeping our agreement, if one were made. He finally agreed to accept our view of the matter, only recommending that the cause of death be given as cerebral apoplexy, as this would be less likely to excite inquiry. If we said cerebral conges-

tion a very natural inquiry would be as to what had caused the congestion. It was so settled and the poor woman spared the knowledge of her dire mistake.

I watched her career for several years, to see whether there was any indication that we had made a mistake, and that she had been a consummate actress guilty of murder. But, as time passed I saw that there had been no duplicity. She was completely prostrated with grief for a time, but, gradually took up her burden and earned a scanty living by sewing and other housework, until her death, which occurred seven or eight years later.

People do not commit murder without a motive, and this woman's life showed that there could not have been a motive for an act by which she had nothing to gain and everything to lose.

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## A Common-Sense Essay on Diet

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[Continued from May issue, page 339.]

### Condiments

Though the condiments probably are not as long in use as food itself, the origin of their use is at least so far back that it antedates the beginnings of history, and they have played an important part in the dietary in all ages. Consisting, in their essentials, of certain molecular groupings of carbon and hydrogen, they constitute the essential, or volatile, oils, and are potential forcebearers; by oxidation, their composition becomes more simple, energy thereby being set free. By reason of the minuteness of the dose which their intensity of action necessitates, they can enter the body only in negligible quantities. Thus, in the real sense, they can not be classed as foods, important as they often may be as accessories to food.

The spices convey a definite stimulus to the digestive organs, so that the food that has been properly seasoned will promote a fuller digestive reflex than is excited by food that is unspiced, other things being equal. While it is true that, the better the health, the less is the need for

spicing, so that the sound body will feel the more satisfied with the plainer fare, there are bodily conditions, even among the comparatively healthy, that respond with more alacrity to the savory food, which, therefore, through the condiment, becomes more digestible. Thus it is as digestive adjuvants of positive efficacy that the condiments should be classed with the articles of food.

### Condiments as Correctives

Nevertheless, there are times when the value of the condiment is that of a corrective, rather than that of an adjuvant proper, and this may occur in two classes of cases, namely, (1) when the body has passed from health to disease, when the correction will be, not of the food, but, of the morbid state of the mucous membrane; (2) when, even though the body be in health, foods that are difficult of assimilation are being taken, as, for instance, the fatty or richer kinds. For this reason, more than one writer has held that the condiments belong in the dispensary quite as truly as they do in the kitchen. They possess valuable antiseptic powers, while

they stand forth prominently in the pharmacopeias in association with the purgative and the bitter principles, although in this role they are commonly known as carminatives.

#### The Relation of Wines to the Diet

Wines, the same as condiments, belong to the table, but, unlike condiments, not to the kitchen; and their use with food is a wider one than that of the condiments, and perhaps even antedates it in custom. While there are many ingredients in the complex constitution of wine, its value rests upon just one, namely, its *alcohol*

Alcohol is composed of 2 atoms of carbon, 6 of hydrogen, and 1 of oxygen, and its action on the human organism is that of a stimulant, at least principally. Nevertheless, it also is a food as well in certain conditions, it having been found, by very positive experiments, that about 95 percent of the alcohol ingested is oxidized and probably converted into carbonic acid and water. Thus, as a food, alcohol liberates energy within the system or, more properly, perhaps, brings out the reserve energy, an energy which, if utilizable only in its lowest form (heat), will serve for the purposes of added temperature and in the place of other kinds of fuel.

#### Alcohol as a Stimulant

By the term "stimulant," is meant something that causes liberation of energy that already is within the body, stored energy. The stimulant calls upon the body to expend that which it has hoarded, and alcohol is capable of setting free and making dynamic the potential energy stored in the tissues. The theory upon which alcohol is given is, that, in case the machinery of the body threatens to stop because of lack of driving energy, the stimulant supplied will set free a certain amount of the stored principle, thus averting the danger for the time being. Of course, the process is limited, it can not be continued indefinitely, the bounds being set by the amount of reserve force possessed by the individual, beyond which to go would tend toward exhaustion. For, while alcohol is a true food and, as such, conveys energy into the system, this energy is but slowly developed, and, as it is being liberated, the alcohol ceases to be, while the stimulant effect is quickly produced, traveling centripetally until it reaches the center, when it unlocks the dose of energy that, escaping,

along centrifugal lines, manifests itself in muscular contraction.

Life itself seems to be, in so far as it is automatic, a succession of reflex acts induced by stimuli—stimuli presented, accepted, reflected. Each stimulus sets the mechanism in motion, each acceptance liberates the energy stored, each reflection directs that energy. And, probably, the stimulus may act anywhere along the line of the reflex arc, as well as at the central station; and it is also probable that anywhere along the same line the irritability of the stimulus may be heightened.

#### The Utilization of a Stimulant

In order to utilize any stimulant, we should so administer it as to liberate the energy in a manner that will be of advantage to the body. Now, it has been conclusively ascertained that to stimulate with alcohol, for the purpose of inducing continued muscular effort, is worse than useless. It has been demonstrated by evidence of the widest application and the most minute detail that, when prolonged effort, physical or mental, is to be made, alcohol is disadvantageous, and that, in order to secure a remunerative effect, the stimulus must be reflected upon a process that is distinctly beneficial, as that of digestion, provided the body is in health. If a lag-gard digestion can be started to life by alcohol, if it will procure a better food-reflex, the energy that is set free by it will be repaid by an improved assimilation, and nothing is lost. In health, therefore, alcohol always should be given in association with food, to assist digestion. It is not required by the vigorous body with sound digestion.

#### Stimulation in Disease

In disease, there often is low anabolism and high catabolism, while, within the tissues, there is reserved power locked up. It is then that the alcohol may be introduced as the key that will unlock and set free this stored energy. Still, even in such a case, it is an unremunerative stimulant, and, for this reason, should be given with food, as a rule, the tolerance of which it will assist, if the food is given in small portions at frequent intervals, as it often must be. The longer the disease seems likely to endure, the more reluctant should we be to begin prescribing alcohol as a stimulant of this nature; for, the greater will be the need of economizing the vital

forces. During the exhaustion consequent upon a journey in a cold storm, alcohol may be administered with beneficial effect upon the whole body; but, in the exhaustion of typhoid fever, it should be given cautiously, if at all, advancing the dose with great care.

#### Alcohol as a Food

While alcohol undoubtedly is a food, it is, all things considered, a bad food, for the reason that, although, as a food, it brings in energy to the body, as a stimulant, it liberates energy, the latter action coming almost at once, the former with deliberation; and experiment shows that, although the exact quantitative relation of the one to the other can not be determined, the system undoubtedly is the poorer—not, the richer—for its administration. Therefore, alcohol never should be given as a food. Its proper use is that of a stimulant, to be associated with a remunerative food.

#### Relation of Tea, Coffee and Congeners to Diet

Tea, coffee, cacao, and their congeners, nonessential dietetic adjuncts, rank as stimulants, their action depending upon principles which, in the various members of the group, are either identical or closely allied; their action falling especially upon the nervous, circulatory, and renal systems of the organism, effecting predominantly the central nervous apparatus. It is for this reason that they are so widely used as beverages, in that they remove the sense of fatigue, give mental refreshment, and renew the capacity for exertion both of the body and the mind. (However, much of these effects may be owing to psychical rather than to purely physical causes.)

While alcohol appears to loosen and disconnect the mental processes, inciting recklessness rather than the brilliancy with which it has been credited, these gentler vegetable stimulants apparently raise the plane of the brain's activity without inducing a subsequent depression. Ideas flow, the judgment becomes more accurate, the perception more acute, the capacity for sustained thought greater. The inference is, that this group of stimulants heightens the excitability of the nervous tissues, the potential of whose cells is more readily liberated and thus

extracts from the nerve-centers the energy stored up by them.

#### These Accessories Not Foods

There is no evidence to show that these stimulant beverages bring any replenishment to the system; for, if we regard the minute amounts in which the caffeine, theobromine, and theophyllines gain entrance, it becomes plain that, as in the case of condiments, we may neglect the problem of their oxygenation in the system, however complete that may be. They can not be foods. Consequently, if they serve only to deprive the system of force, they must be used with strict regard for those other processes of assimilation that add force, and the intervals between the ingestion of them must be of sufficient length to allow of a complete recharging of the nerve-cells. Cocoa, the beverage, is different from tea and coffee, in that it is made to carry a food-stuff, while its active principle, as therein administered, acts much less potently. However, as for tea and coffee, moderation and temperance are as imperative as in the case of alcohol. If too much alcohol wrecks, so will too much tea or coffee, albeit in a less notable and shameful manner. Tea and coffee make nervous ruins of the brain, induce insomnia, promote a painful irritation and a degenerative habit, and invite a disaster that is scarcely less dire than that resulting from excess of alcohol.

The processes of healthy life are those of charging and recharging, emptying and filling, and, when we ignore this, closing our eyes to the obvious fact that the one process demands the other, that what is released as energy must be restored as energy, we are perpetrating an excess and inviting an inevitable collapse sooner or later. Condiments, stimulants, all food-accessories as well as foods are neither good nor bad. They merely stand waiting for us to employ for our good or for our hurt, as we may decide. Temperance, alone, is wisdom here as in so many other directions in life.

It may here be added (although it is so well known that it scarcely needs repetition) that tea and coffee, taken even in moderation, may act so deleteriously upon the digestive organs of some persons that they never should be used by them at all.

Following are some of the principal dietetic faults commonly committed, as



enumerated by Dr. A. L. Benedict:

1. Milk diet.—Deficient in iron, contains approximately 4 percent of each organic nutriment, hence, deficient in carbohydrate; yet, levulosuria is liable to occur if 3 liters or even less of it is ingested in a day, corresponding to only 120 Grams of carbohydrate. Introduces too much water if the adequate ration of proteid and fat is exceeded. Especially objectionable for persons exposed to cold or otherwise requiring energy and heat, and for those subject to colon-bacillus virulence, hence, in typhoid fever.

2. Broth (beef-tea) diet.—Contains practically nothing but water, salts, purins, and a little gelatin. Valuable only as a stimulant; distinctly contraindicated whenever purins are in excess, as in gout, lithemia, liver and kidney disease, and having almost no true nutritive value.

3. Egg diet.—Seldom tolerable, nearly lacking in carbohydrate. Each whole egg contains about 8.5 Grams of proteid, 5 Grams of fat; each white contains about 6 Grams of proteid. Thus, 6 eggs constitute a fairly adequate ration of fat and proteid, but, it is difficult to add the necessary carbohydrate alone. If taken raw, the albumin is liable to pass through the kidneys unutilized in part.

4. Spoonful diet.—It makes very little difference whether teaspoon- or table-spoon-measure is used or whether the interval is half an hour or one or two hours, not enough nutriment can, in that way, be given of any liquid or semiliquid food, while the stomach is kept irritated.

5. Raw-meat diet.—Parasites are likely

to be introduced, at a time when the patient is especially susceptible. Deficient in fuel-value.

6. Meat-juice and meat-extract diet.—The maximum richness is about 7 percent of proteid, as prepared for administration; hence, nearly a quart is required for the proteid ration, and it is absolutely impossible to give enough to provide the necessary calories.

7. Cereal diets.—Very excellent if properly combined with milk, eggs, butter, and meat; but, usually given without due attention to variety and total ration. Lacking in iron.

8. Ambulant - diets.—While ordinarily fairly well regulated as to negative danger, that is, with regard to positively harmful and indigestible ingredients, too little attention is paid to variety and appetite, and the physician mostly has not the faintest idea of how much proteid, fat, and carbohydrate is actually being received.

9. Frequent-meal plan.—Supposed to avoid overtasking the stomach, especially in cases of atony, dilatation, and ptosis, and to increase the total assimilation in reduced strength. Almost invariably infringes upon the period of physiologic rest for the stomach and, consequently, renders these conditions worse, while, sometimes, greatly exceeding or falling below the total ration needed. Systems of 13 daily meals have been seriously proposed by physicians of influence. As a rule, 3 to 6 meals daily are sufficient.

(To be Continued.)

## Experiences of a "Rookie" Medical Officer

By Lieut. G. H. CONN, M. C., U. S. A., Remount Depot, Camp Taylor, Kentucky

[Concluded from August issue, p. 572.]

WE arrived in Kansas City about twenty hours late and had just enough time to get our supper before starting for St. Louis. We left for our next stop, hoping that it would be more pleasant than the previous one had been, but, if anything, it was worse. Because of the cold that night and the lack of blankets, I can sympathize with anyone whom I know to be inconvenienced by the cold. I utilized my over-

coat and all the other clothes that I had with me, trying to keep warm, but, I did not succeed. The porter on that car was a very busy man, as everyone was ringing for him and demanding more blankets. He has not forgotten that night yet.

When morning came, we found that the steam-pipes had frozen up and that that was the reason why we had been so cold. We did not have any water in which even to wash our faces and hands. We went

to the dining-car and tried to eat something, but, it was not a very successful breakfast, as we had to muffle ourselves up in our overcoats. However, we arrived, at about noon, being about five hours behind time. I know that many people think that army-officers always have an easy enjoyable life, but, I am sure that, if they could but know of the experiences of thousands of them, they would very quickly change their minds.

#### A Rebuke for the Yokel

We always excited more or less curiosity among people in those towns where they were not accustomed to seeing more than one army-officer at a time, as there always were three of us and sometimes more and we always put up at a good hotel and stayed but a day, as a rule, and they were very skeptical as to our business, especially if they could not find out. Several times we were thought to be secret-service men. We had not been allowed, during the past few months, to disclose our business, so of course, when we politely declined to give to questions the desired information, their curiosity was aroused more than ever.

It seems quite natural for some people's curiosity to get the better of them and I never shall forget how forcibly this was brought to my attention one evening when we were standing in the Union Station at Wichita, Kansas, waiting for our train, which was due in just a few minutes. The other two officers that were with me on this trip were both captains and they were always ready to play a practical joke on someone when the opportunity presented itself. We were discussing our trip for the next day, when someone came up and stood between two of us just as if he belonged to the party. He was a very unkempt and rough-looking fellow and not overintelligent-looking and I presume he thought he was going to get some firsthand information about the war directly from someone who knew. Immediately one of the captains recognized the opportunity to play a joke, so he started asking me questions about the pro-Germans that were being arrested and imprisoned; this being just at the time when they were getting so many of them. I replied that I had arrested three just two days before at San Antonio, Texas, and that I was going out from Wichita to look up some more and then was to go

up near the Canada line where, I understood, there were several of them hiding; I also told him how many I had arrested, myself, and that we had executed them just as soon as we were sure that they were pro-German and that up to that time we had shot altogether about three hundred of them. I wish you might have seen the expression on that man's face. I guess that he was afraid to ask us any questions, but, he did not miss a word of our conversation. Our train was on time and, as soon as we got inside the coach, we, sure, had a hearty laugh over the yokel. We felt that, if he ever awoke to the hugeness of that joke, it might bring home to him the fact that he should not make any special effort to mix in a conversation that did not concern him. I wish that I might have seen him when he told what he overheard, for, I am quite sure he believed every word of it.

#### Snowbound in Kansas

There is hardly a state in the Union that has made more history than has Kansas; in the early days when the plains were covered with wild cattle and it was very sparsely settled, it was overrun with bandits and bad men and the policy those days was, to shoot first and talk afterward. We scarcely ever went out on a trip into Kansas but that something unusual would happen to add a little spice to our trip. However, Kansas is different now, its people are as fine as you can find anywhere. Nevertheless, in lieu of something more exciting, one may encounter a sandstorm or a snowstorm: they have them both. I have seen the sand blow so furiously that one couldn't see the sun, and it would sinter into the houses from blowing in around doors and windows. On one of our trips, we got snowbound near a little town in western Kansas, despite our greatest efforts to get through. Luckily, in the baggage car, there was a case of bread and a half-side of beef. So, we backed up to the nearest town and there had the meals prepared for us. We were held here for four days and four nights, the Santa Fe Company, on whose train we were passengers, furnishing us with meals. The snow was so bad that we could not reach any town where we might catch a train on another road. We did not have very good beds, as we had to stay on the train only long enough to eat our meals; for, they had a snowplow work-

ing and were working toward us as fast as they could. Luckily, the train was not crowded and we made beds out of the seats as best we could and used our extra clothing and overcoats for covers. The time passed very slowly, still, playing cards and singing, we managed to get along very well. Finally, the snowplow and another engine got through the snow bank and we were on our way again. Progress was very slow, still, we arrived at our destination, but five days late.

We spent one day in Caldwell, Kansas, which, in the early days was, perhaps, the worst little town of its size in that pioneer region. All the cattle-rustlers, cowboys, gamblers, and bad men from hundreds of miles to the west and southwest came to this place, as it had the only railroad in this section of the country. Cattle that were stolen in Texas would be driven through Oklahoma and shipped from here to the market. That class of men who wanted to get their living for nothing flocked here to win the money from the cattlemen by gambling, while others held them up and took it away from them at the point of the gun. I was told by some of the older residents of the place that in those days they would average a killing for almost every day of the year. Many of the same old buildings still are there, but, all is peaceful and quiet now and the folks are as fine as you can find anywhere.

#### Carrie Nation's Home

Caney, Kansas, a little town in the southwestern part of the state, will always be mentioned in history and will be noted for the wielder of the little hatchet, who was one of the most violent antagonists that the liquor-interests and the saloon ever had. This was the far-famed Carrie Nation. Whether she was right or wrong, she had the courage of her convictions and, no doubt, the vengeance that she wrought upon some of those men who had directly brought a terrible suffering and blighted happiness and an unhappy home-life of the vicinity in which she lived was not greatly to her credit. However, be that as it may, there will come a time when, no doubt, she will be held in greater respect than she is at present.

At Coffeyville, we visited the scene of that famous attempt of the Dalton boys to rob the bank of that place and in which two of them lost their lives. The same building houses the bank as it did then

and the bullet-marks can very plainly be seen in the walls on either side of the alley in which they sought refuge. The man who was credited with the destruction of these bandits still is living here. He was presented with a handsome gold medal after this affair. Many of the older residents can give you a very detailed account of this terrible event. The culprits are buried in an obscure grave in the graveyard on the edge of the city.

#### Carrying On

I now had been in the service about four and a half months and, while I had made many mistakes, I still was trying to make good as an officer and thus far had not made the same mistake twice. However, I was treated to the surprise of my life when, upon my return to the office, I found a commission as first lieutenant awaiting me. I never shall be more surprised in my life, nor more agreeably so. If you have never experienced anything like this, then I could not make you understand just how I felt.

During the later part of March, we had some business that called us to Denver, Colorado. I had never been in that state and, as we were due there at about 8 o'clock, I awoke just as the sun was rising. What a wonderful sight it is to see the sun rise here, as this country still is virtually a prairie, so that you can see ahead for miles. Pike's Peak, which is about 75 miles from the railroad, was easily seen and you could very plainly see the snow that capped its peak. It did not look to be more than ten or fifteen miles distant, at the most. As you pass from the Union Station to the city, there, above the large arched gate, is the word, "Mizpah," which means, in effect, "May God watch over you and keep you safe while we are absent one from another." But, that is intended for the eyes of those that are departing from the city and what a wonderful thought that is to leave with one who is departing. Denver is, by far, the most beautiful of any city that I ever have visited. I wonder why other cities do not adopt a similar slogan, rather than one that savors of commercialism.

It was during our few days' stay in this city that I had the most embarrassing experience in my life. I had decided to call at the hotel where one of our men was staying and to whom I wanted to give instructions as to a certain duty for him

to perform. I left my car standing on the opposite side of the street and walked in to the hotel and remained, possibly, ten minutes. As I left the hotel and started toward my machine, three men walked boldly and quickly up to me, and, before I realized what had happened, they seized me by the arms and held me fast. I demanded at once their right to hold me in this manner and they showed me their detective-badges. I assured them that they must be mistaken in their man, as I had done nothing for which I should be treated like this. I was very indignant and protested forcibly against their holding me, but, they insisted upon taking me to police-headquarters. I was very persistent about being allowed to prove that I was not the man they wanted and finally they consented to accompany me to my hotel, and there convinced them of their gross mistake. The man that they were after was a civilian who wore an officer's uniform and who would go into business houses and make a purchase and then give a check much larger than the costs and then get away with the change. His checks were worthless, and he had passed several-hundred-dollars' worth in two days.

It was but a few days later that our business again called us to Denver, and on this trip we had the good fortune to escape what might possibly have been, a fatal catastrophe to many of us. We stopped at about an hour's run out of Denver, just at daylight, to take on board the train-despatcher, who had been seriously burned early that morning. He poured into the stove, what he thought was kerosene, to start a fire, but, it was gasoline. However, he stuck to his duty and worked his semaphore, and thus stopped a fast passenger-train with which we most certainly would have collided, with the most appalling consequences. This man's last thought was, his duty, and he performed it well. Just how many lives he saved no one knows; but, at 9 o'clock that day, this young hero breathed his last.

It was not long before I received orders sending me south to a camp in Georgia. It was in May and we had just had a heavy rainfall, and, when we were just a few miles from the Arkansas line, we were held up about twelve hours at Thayer, Missouri, by the high water. We were, at last, able to proceed, but, only very slowly, as this, we were told, was the

worst flood they had experienced in more than forty years. For a hundred miles or more, the water was covering the ground on either side of the tracks anywhere from a few inches to several feet. At places we could see for two miles or more, and the entire country was under water. At other places, the water stood to near the top of the houses and barns, while some of them had been floated away from their foundations.

#### A Costly Bit of Knowledge

I had a little business at home that I wanted to care for personally and I wanted, also, to see the folks for a short visit, so, as soon as I received my orders, I left my new station by the way of my home and stopped there for two days. I arrived at my new station and reported to the commanding officer. The latter looked at my orders and said, "Where have you been? You should have been here three days ago." I told him that I had passed through my home town and stopped over to care for some business. He said, "Is that the only excuse you have for being late?" I answered, "Yes, sir." Then said: "You put that in the form of a written statement and hand it in to me." He added: "You look up A. G. O. No. 68 and read it carefully." I did so and found that, when an officer is transferred from one station to another, he shall proceed to his new station without any unnecessary delay. When my next pay-voucher came, it was short fifteen dollars. It cost me fifteen dollars to learn the meaning of order Number 68, and I shall not soon forget that.

Nothing unusual happened at this station during my stay here, which was only about a month. I was fast beginning to realize that, during the wartimes, it is best not even to hazard a guess as to what the morrow would bring forth, but, then, I think that almost everyone in the army entertains some hope of being transferred to some particular place to which he is partial or to some particular duty that he desires. I had been here almost one month when I began to think that I might be left here for some time, when I received my orders to report to a camp in North Carolina.

I reported to this camp and found one of the handiest camps that I ever have seen, as regards proximity to the city. The city here was just at the edge of our camp.



Here I met several of my friends with whom I had been stationed at Kansas City, and also some from some other camps where I had been stationed.

I had been here but a little more than a week when I was put in charge of a trainload of horses and mules that were being sent to a point in Virginia. I had with me six enlisted men to help care for the animals. We reached Danville, Virginia, at about seven o'clock in the evening and we were getting hungry, but, without any prospect of getting anything to eat before morning. Asking the conductor, the latter told me that it would be at least three-fourths of an hour and maybe an hour before the train would leave here, as they must change crew here and that we should have plenty of time to get something to eat. I requested him to tell the new conductor not to leave until I was on the train with my men. We went to the Union Station and secured a lunch as soon as we possibly could and then started across the long bridge that spans the river separating the station from the railroad-yards. At the head of the bridge, we were stopped by a bunch of boys who told us that our train had pulled out and left us behind. I did not attach much importance to that, as I thought they had drawn up to take coal and water or make some repairs on a car. I at once went to the yardmaster and was told that they had gone out under orders.

Here I was with four of my men, no train by which I could overtake my own train, and this train on its way without me. It did not take me long to declare myself and, while they were very reluctant (as railroad employes usually are) to do as I ordered, it gradually dawned upon the despatcher that my authority was final on the train carrying the animals, and so, the departing train was stopped at the first station reached about ten miles distant. I secured a motor car to convey us to that place; and under my promptings, it was a wild ride, indeed, for, I did not want to delay that train unnecessarily. When we arrived, the waiting crew was considerably peeved, and attempted almost everything else to make me feel that they were running the train to suit, not me, but themselves alone.

It was not long after, that a trainload of horses and mules was shipped to be used in the construction of a new camp. When we arrived there, no provision had been

made for stabling the animals and no one had been detailed to care for them. As there were no corrals or picket lines, we tied them in the woods to ropes that we stretched between the trees, but, as there were six hundred of them, we had all the work we could possibly do in caring for them. We secured hay and grain, to feed these animals, from all the little towns 'round about; and let me say, it kept us very busy.

#### Looking Back

I have been in the service now for one year and have begun to like many parts of it. It has many disadvantages to which the average person must adjust himself; yet, it all works out in time. Military discipline is one of the things that it is very difficult for the average man to submit to, yet, after a while, the necessity of it becomes a settled fact with one. Once, during this time, I was on the list of officers that were to be sent to France. I had always wanted to go and do yet; nevertheless, there is a peculiar feeling that sweeps over you when you know that you are going. You wonder how long you be gone, how you will stand the voyage, how you will like the service abroad, whether you will return, and many other questions. This feeling all passes away in a few hours and I am sure now I could embark without the least bit of fear or trembling.

As you learn more of army-service and as you grow older in the service you realize that almost everything in the army works out pretty well, after all.- Not many changes could be introduced to the advantage of the service. If it could be done, it would be, you can rest assured about that. The average soldier learns many things in a few months, that it would take him months to learn, that make him a better man in every capacity, and a better citizen. The Army of the United States aims to deal fairly and squarely with everyone of its men and I can truthfully say that I believe it does succeed better than any other organization of any size in the world in accomplishing this object. I can not see how anyone could serve in our army and not leave the service a better man than when he entered it. I am sure that every other American soldier also feels that our army is the finest in the world and that it is the highest honor that could come to any man to be able to serve in it.



# What Others are Doing

## AS TO THE BACTERIOLOGY OF INFLUENZA

In *Public Health Reports* for June 27, Dr. Edwin O. Jordan presents an interesting communication upon observations made in patients affected in an influenza-epidemic in the Student Army Training Corps of the University of Chicago; also in civilian influenza-patients in various hospitals in the vicinity of the University of Chicago; further, in patients mainly university-students who contracted influenza in December, 1918, to February, 1919, after the main Chicago epidemic had subsided; and, lastly, in cases of tonsillitis, "colds," and other respiratory-tract affections occurring during and subsequent to the epidemic.

One object, especially, in view was, to determine the relative frequency and abundance of the Pfeiffer-bacillus in the upper respiratory tract of persons suffering from influenza and from common nonspecific respiratory-tract-infections. Another was, a series of similar observations upon the diplostreptococcus-bacillus described by Mathers (*Jour. Amer. Med. Asso.*, Nov. 23, 1918, p. 1733).

The results of these investigations and observations show that the bacteriological picture in influenza is not a uniform one, so far as nose- and throat-floras are concerned. Daily examinations of a number of selected typical cases, both mild and severe, have shown no one organism constantly demonstrable in large numbers by the methods employed. The two organisms most commonly and abundantly present in this series were, the Pfeiffer-bacillus and the diplococcus or streptococcus found by Mathers at Camp Meade.

## THE VICIOUS CIRCLE OF PNEUMONIA

While leukocytes combat infection, nature often works in a vicious circle, which it is the duty of the physician to break. In pneumonia, for instance, the right side of

the heart carries a burden and the pulmonary second sound is accentuated. This increases the pulmonary congestion and the vicious circle continues until the heart is exhausted.

In order to break this vicious circle, A. B. Grubb (*Med. Council*, June) administers full doses of nitroglycerin every half hour for the first five to seven days of the attack, for its vasodilator effects, through which blood pressure is lowered and pulmonary congestion limited.

The editor of *The Medical Council* points out that the effect of nitroglycerin varies in different individuals and that toxic effects, especially respiratory failure, must be guarded against. In his opinion, it often is preferable to attain to large doses but gradually. This is quite in accordance with our own custom of administering nitroglycerin (glonoin) in doses of 1-250 grain, which may be repeated until specific symptoms make their appearance. The use of this remedy in combination with aconitine and other synergists, has been recommended in CLINICAL MEDICINE for many years, especially in pulmonary congestion, for the very purpose that is now named by Doctor Grubb.

## WARTIME AND SMALLPOX

It was unavoidable that, during the stress of the Teutonic invasion and the necessity imposed upon the French people to send all their able-bodied men to the trenches and to devote their efforts to the winning of the war, the vigilance of the sanitary police in the civil population became lessened and that this, together with other factors, contributed to promote the occurrence of epidemics that appeared in France among the civil population, as well as in the armies.

At a recent meeting of the Academy of Medicine, Doctor Wurtz reported that, last April, there had been recognized fifteen cases of smallpox in Paris and twenty-two such in May; while, since the beginning of war up to March, 1918, hardly any

cases of smallpox had been observed among the Parisian population.

The present epidemic is attributed to importation of outside cases and also to the negligence of the people to be revaccinated. It was owing to the nonobservance of the sanitary regulations at ports in Southern France, and in Paris, that numerous smallpox-patients were enabled to enter France during the last year. The French people, especially the women and old men, believing that they were immune, manifested a regrettable objection to being vaccinated. In consequence, there are, at present, several million people in France believed to be susceptible of contracting this indubitably preventable disease. The one remedy that can be applied is, thoroughgoing and repeated vaccination of the entire population.

These observations, it is needless to say, simply confirm the position taken among others by the medical profession. There is constant repetition of proof of the benefits derived from suitable vaccination and from the possibility of delimiting and, indeed, eliminating smallpox as an epidemic disease.

#### DIPHTHERIA, THE UNCONTROLLED

Under the above title, Dr. B. W. Carey, epidemiologist to the Massachusetts State Department of Health, contributes a study to *The Boston Medical and Surgical Journal* for July 24, that contains much food for thought.

Doctor Carey points out that, save in that period immediately following the introduction of antitoxin, there has been no marked interruption in the incidence or mortality of diphtheria. While in preantitoxin days the average mortality was about 28 percent, in the next 20 years, it was 11.5 percent, and, since 1915, the mortality has fallen slightly, being now about 10 percent.

An investigation of 1,000 deaths from diphtheria showed that 31.5 percent occurred in individuals that had been ill one week or longer without receiving medical attention; 11.8 percent of the deaths occurred in individuals moribund at the time of the doctor's first visit; 7.6 percent occurred in individuals in whom the condition was unrecognized until it was too late for the antitoxin to be efficacious; and 65 percent of the deaths occurred in chil-

dren 5 years of age or less. The source of the infection was unknown in nearly 90 percent of the cases.

Doctor Carey properly concludes that more attention must be paid to the group of individuals falling within the preschool-age group, and that both the medical profession and the laity should be provided with a more complete knowledge of the prevention and control of diphtheria.

Doctor Carey believes that the time will come when the Schick-reaction test, with its more frequent and intelligent use, will place a large percentage of the nonimmune under care for immunization, and, in accordance with the experiences of the New York City Department of Health, the prevention in that respect would be in direct proportion to the efforts expended.

It has been found that 60 percent of the children of less than school-age, that is, under 6 years, were not immune to diphtheria as determined by the Schick-reaction; and work done in New York by Doctor Park and his associates clearly demonstrated the value and safety of immunization against diphtheria by the toxin-anti-toxin mixture employed by them.

It will be remembered that, some years ago when the Schick-reaction test was first introduced, it was found that a great many infants manifested at birth a congenital immunity from diphtheria but, that this diminished during the first two years of life, so that children between 2 and 6 years of age are peculiarly liable to become subject to diphtheria. It is a logical conclusion, confirmed by actual experience, that those children that are found, by means of the Schick-test, to be non-immune should be immunized against diphtheria in like manner as they are immunized against smallpox by means of the cowpox vaccine. In this manner, the proportion of diphtheria-immune individuals could be materially increased.

In Doctor Carey's opinion, the problem is one for the Boards of Health to solve, and especially for those of large cities; since statistics taken from the Census Bureau show that more than 80 percent of diphtheria-deaths occurred in cities of over 10 000 population. These cities not only had the largest percentage of diphtheria-deaths, but, they also have or ought to have the necessary personnel and equipment for the prevention and control of that

disease. Every city of this class has school-physicians, school-nurses, laboratory-facilities, stations for the distribution of antitoxin, and the necessary regulations to enforce, by law, if need be, quarantine and isolation.

There can be no hesitation in accepting Doctor Carey's conclusion, because diphtheria is justly feared more, almost, than any other disease affecting children; and it should not be difficult to organize the deliberate testing and immunizing of small children, inasmuch as the parents safely can be assured that in this manner the little ones can be definitely protected against this dreaded disease.

### THE SCHICK TEST OF IMMUNITY TO DIPHTHERIA

From the *Monthly Bulletin* of the department of public health and charities of the city of Philadelphia, July, 1919, we copy the following timely information:

*What is the Schick Test?*—A dose of diphtheria toxin is injected between the layers of the skin of the arm. If the person's blood contains antitoxin, nothing happens and the patient is declared immune. If, however, a distinct circumscribed area of redness appears at the site of the injection the test is declared positive, which means that the person does not have in his blood sufficient resistance against diphtheria and is liable to contract the disease.

*What is meant by Diphtheria Toxin?*—This is the poison produced by the diphtheria germs and is obtained by growing the bacteria in broth for a certain length of time, after which they are killed by carbolic acid.

*What is meant by Diphtheria Antitoxin?*—This is a serum produced by inoculating the horse with diphtheria toxin. The animal's resisting power causes the antitoxin to be produced in the blood.

*Is there any risk to the test?*—Absolutely none. When the test is positive the redness which appears gradually disappears on the third or fourth day.

*What is the idea of having the test made?*—Diphtheria is a very serious disease. About one out of every eight cases is fatal. The infection exists in this city throughout the year, and children between the ages of two and ten are most susceptible. Every father and mother wants

to know if their children are liable to catch this disease and if so, how it can be avoided.

The Schick test determines this. There is a serum called toxin-antitoxin which, when injected, confers immunity to those who react positive to the Schick test.

*Why should the test be made?*—All children over the age of one should have this test made. Nursing infants seem to have a natural immunity to the disease, because of protective substances in mother's milk.

*What is a negative test?*—If no redness of the skin develops after the Schick test, it means that the blood contains sufficient resisting power to diphtheria. Persons having a negative test and exposed to diphtheria do not develop the disease.

*Are adults immune to diphtheria?*—After the age of ten the occurrence of diphtheria gradually lessens. Few adults contract this infection and grown persons are relatively immune to the disease. Statistics show 40 percent of positive reactions to the Schick test in children, and 60 percent positive in adults.

*Is there no intermediate reaction between positive and negative?*—Yes. The reaction may be strongly positive, positive, moderately positive and faintly positive, depending upon the degree of the redness of the skin.

*If the test is positive, what is done to prevent diphtheria?*—A serum which is a combination of toxin and antitoxin is administered under the skin at three sittings, seven days apart.

*Does the toxin-antitoxin serum cause any harm?*—No. Local and constitutional symptoms are noted in 20 to 50 percent of cases. These are redness, slight swelling and tenderness of the arm and a slight rise of temperature. The symptoms, if any, disappear within forty-eight hours.

*How long does this acquired immunity last after the toxin-antitoxin administration?*—In 95 percent of cases previously susceptible, the protection against diphtheria lasts for years, possibly for life. To make sure of the duration of immunity the Schick test can be made regularly every year.

*What is the practical value of the Schick test?*—In every school, institution, hospital or home where large numbers of children are quartered, diphtheria may break out at any time. By testing every child on admission, one can determine which children are susceptible to the disease. Those who re-

act positively are given the toxin-antitoxin treatment. In this way, diphtheria may be eradicated. If diphtheria breaks out in your home, antitoxin is given to those who react positively to the Schick test. In this way persons immune to the disease avoid the inconvenience of having the serum injected.

#### A CARRY-ON ASSOCIATION

The June issue of *Carry On*, a magazine devoted to the reconstruction of disabled soldiers and sailors contains a correspondence by C. P. J. Mooney, editor of *The Commercial Appeal*, at Memphis, Tennessee, referring to a Carry-On Association that is worthy of emulation.

It appears that there exists in Memphis a Carry-On Association composed only of men that in some way are physically disabled. If you have but one eye, one leg, one hand, you are eligible to membership. Even if you have but lost one finger, you can become a member. There are no dues. Regarding the work of the Association, Mr. Mooney writes:

"When we meet a man recently crippled, we put him in touch with someone that has been crippled for a long time in a similar way and who is doing something. Thus, if a one-legged soldier comes to town and wants to go to work, we put him in touch with some one-legged civilian. That one-legged civilian tells the crippled soldier what he himself did, how he got along, what sort of job he secured and how he made good.

"At one of our meetings, we had a man with no hands. He worked in a box-factory and made from \$4 to \$6 a day. Recently, I met a returned soldier who had lost his left hand. I got him in touch with a one-armed railway man, and now the ex-soldier has a job in one of the freight-offices. Some time ago, a young man, whose legs had been cut off by a train, came to see me. He had two fine artificial legs. He could walk as well as a man with two natural legs. He got in touch with a firm selling artificial limbs. He is a walking demonstration of the excellence of a certain kind of leg."

It goes without saying that such an association contains in it the germs of untold good. In these days, when so many men are returned from the army minus

some portion of their anatomy, but, plus a tremendous amount of inspiration and courage and grim determination to make good despite their physical handicap, there is presented a stimulus for those of the civilian population that had suffered similar injury in civilian life and who ever since may have been deeply sorry for themselves. Why should not physicians start Carry-On Associations with returned maimed soldiers as nuclei and thus help all those unfortunates, that have been subject to accidents, to an attitude through which they will be enabled to lick circumstances into shape for their own ends, instead of supinely submitting to circumstances?

We believe that such Carry-On Associations could do immense good in many places. What do you say?

#### HERNIOTOMY UNDER LOCAL AND SPINAL ANESTHESIA

Herniotomy can be performed painlessly under local anesthesia, and under spinal anesthesia, which is the more fortunate as cases are constantly encountered in which general narcosis is contraindicated for some reason or other.

Writing in *The Nebraska State Medical Journal* (July), Dr. Henry B. Boyden expresses the opinion that the rather extensive use of quinine and urea hydrochloride, a few years ago, in local anesthesia and the use of stovain for spinal anesthesia, with resulting wound sloughs in the former and some mortality in the latter, gave rise to an unjust timidity regarding the employment of these methods. However, under a proper mode of procedure, such as is observed in, for instance, Babcock's Clinic in Philadelphia or by Bodine in New York, encouragement is experienced to employ one or both of the methods in question in preference to operating under general anesthesia.

Doctor Boyden's experience has been entirely with procaine, which he considers entirely satisfactory, and with which he feels secure.

A preanesthetic narcotic of morphine and atropine is given both in local and spinal anesthesia in order to lessen any psychic shock and to allay the pain when the analgesia is gone.

The technic employed by him in local anesthesia is first to infiltrate the line of skin incision, using a hypodermic needle.

Then he infiltrates the subcutaneous tissue, using a needle of 15 to 20 gage, and  $1\frac{1}{2}$  inches in length. Then he inserts the needle perpendicularly to the skin, penetrating the aponeurosis of the external oblique, which can be felt very definitely, and infiltrates this subaponeurotic area.

In five minutes, the incision is made through the skin, the subcutaneous fat and the aponeurosis of the external oblique. Upon the exposed surface of the internal oblique, one will see the ilioinguinal and hypogastric strands of the iliohypogastric nerves, which are blocked with a few minims of procaine solution at the upper end of the wound. This also makes one careful as, having seen these nerves, one will not cut them as is so often done under general anesthesia.

The internal oblique muscle and the coverings of the spermatic cord are infiltrated, thus blocking any filaments of the genital branch of the genitocrural over the cord. The subserosa of the sac now is injected; if sensitive, an injection of the periosteum around the pubic spine will avoid any pain in the pubic reflection of Poupart's ligament, the innervation of which is derived from the 12th dorsal nerve. Just prior to cutting and tying off, the neck of the sac is injected.

Doctor Boyden uses procaine, 0.25 to 0.50 percent, in physiologic salt solution and injects 5 to 10 ounces of this solution, but, not more than 8 grains in all, and 1 drop of adrenalin solution, 1 : 1000 to each 100 drops of procaine.

For spinal anesthesia, Doctor Boyden dissolves one grain of procaine in  $1\frac{1}{2}$  to 2 mls of physiologic salt solution, withdrawing the same amount of spinal fluid prior to injecting, and having the patient retain the sitting posture for three minutes. Analgesia occurs in two or three minutes. If it is not manifest in six minutes, the injection is repeated. The analgesia lasts from forty-five to ninety minutes and wears off gradually. Sometimes, though, the patient may need, in addition, a hypodermic of morphine.

#### THE INDICATIONS OF LOCAL AND SPINAL ANESTHESIA

In the article referred to in the foregoing, Dr. Henry B. Boyden declares that spinal anesthesia is indicated especially in elderly people with emphysematous,

bronchial or tuberculous lung conditions, or is indicated in myocardial and endocardial lesions; also in nephritic or high-blood pressure conditions.

It is also indicated in any condition of lowered vitality wherein one does not wish to add to the patient's weakness.

While he would not use it in pronounced cases of severe shock, as there is a lowered blood pressure under these conditions, and there is a slight lowering of blood pressure with spinal injections, he has used it in early strangulated or incarcerated hernia and the result of blocking the spinal cord has brought the patient out of the shocked condition during the operation.

Local anesthesia is indicated in the same class of cases that one would use spinal anesthesia in by choice but more especially in active adults with associated lung, heart or kidney lesions.

Excepting with highly nervous people who do not wish to be conscious during an operation and including those with unpleasant ether reminiscences, he operates on hernias by choice under local or spinal anesthesia.

#### THE MEDICAL TREATMENT OF APPENDICITIS

It is generally accepted that appendicitis is a surgical disease, and, indeed, many surgeons have gone so far as to erect a large "hands off!" sign in all conditions where the appendix may be assumed to be diseased, this warning, of course, being directed to the internists.

Nevertheless, it can not be denied that there are very many instances that we must clinically diagnose as appendicitis, and which progress favorably under purely medicinal treatment, very often, indeed, without being followed by recurrences in subsequent years.

Not so very long ago, the use of opiates for the purpose of alleviating the excruciating pain of appendicitis was condemned wholeheartedly by surgeons, on the plea that it masks the symptoms and obscures the diagnosis. Since Crile's studies on anociassociation, however, the administration of opiates, under certain conditions, for the relief of pain, has been established on a reasonable basis and it is now admitted that the agonies of appendicitis



properly are relieved by means of narcotic remedies, in order to lessen shock.

Dr. S. N. Robertson (*Med. Council*, June) declares that, while appendicitis is a surgical disease, medicinal treatment may greatly assist nature to overcome the infection. The patient must be in bed and kept quiet. At first, nothing must be given by mouth, this being in accordance with the treatment laid down, years ago, by Dr. Albert J. Ochsner. An enema may be given, to clean out the lower bowel, while hypodermic doses of morphine not only will alleviate pain, but, also keep the intestines quiet, so that nature may have a better chance to localize the infection. For the first day or two, hot applications may be employed, while enteroclysis of physiologic salt solution will help to relieve thirst and supply water for the tissues.

In Doctor Robertson's opinion, it is better not to give epsom salt, as this drug liquefies the stools and may add fuel to the fire. The favorable results that have been reported after the administration of laxative salines were in cases of the mild catarrhal type. Doctor Robertson concludes by advocating symptomatic treatment, as it is indicated.

#### MIGRAINE AN ANAPHYLACTIC STATE

In the issue, for June 28, of the *Gazette des Hôpitaux*, Doctor Laumonier discusses an article originally appearing in the *Presse Médicale*, according to which good results have been obtained in several cases of migraine by administering  $7\frac{1}{2}$  grains of peptone of good quality about one hour before the principal meals. It is believed that this procedure does not influence the attack itself, but, rather, the general condition of the organism, owing to which migraine appears more or less severely.

In five cases upon which the report is based, the patients experienced great improvement. The attacks of migraine ceased for as long as the peptone was being taken and its good effect extended to certain digestive disturbances that had been present.

An explanation of this observation is be-

lieved to lie in the hypothesis according to which migraine is an anaphylactic phenomenon. It is interesting to learn that the method was suggested by an experience in a very severe case of urticaria depending upon intolerance of all protein substances, both animal and vegetable, and in which a cure resulted from prescribing very small "snacks" a short time before the principal meals; and then, in order to simplify matters, instead of the little "snacks," powders of peptone were administered.

It is understood that this is the method suggested by Besredka for the treatment of alimentary anaphylaxis. The good results observed in the cases reported certainly seem to confirm the view according to which migraine is of anaphylactic nature.

#### IMMUNIZATION AGAINST ANAPHYLAXIS

In a recent communication to the French Academy of Sciences (*Gaz. des Hôp.*, July 19) Professors Ch. Richet, P. Brodin and F. Saint-Girons reported on certain experiments in which they determined the immunizing action of sodium chloride against anaphylactic shock through the injection of serum.

If, three weeks after a first injection of horse serum, in a dog, the same dog receives an injection of 50 mils of the same horse serum, the anaphylactic reaction takes place without fail; it is brutal, sudden and intense and in most cases rapidly fatal.

If, however, in the place of the undiluted horse serum the same quantity of the same serum is injected but diluted in nine times its volume of isotonic solution of sodium chloride, hardly any symptoms eventuate. It seems, therefore, that the sodium chloride possesses a protective action against the development of the anaphylactic reaction.

The experimentors add that, in their opinion, it is justified to hope that from this interesting experience it may be possible to elaborate a new method of immunization through which anaphylactic shock will be prevented.



# Let's Talk it Over

## Letters from France—XII

ASSUMING that the League of Nations will be accepted by the different nations and become part of the Peace Treaty, then the necessity will soon arise for such a league to exercise certain clearly-defined functions, which at present are associated with every well-organized State. Such functions will be of an international character and will be exercised by the League, by virtue of its being of the nature of a superstate. These functions are legislative, judicial, and administrative. Their nature and scope are, or will be, defined in the League Covenant. Labor and industry also are provided for in the constitution.

But, what about health? This vital subject that concerns each nation, and every individual in it, will, surely, have to be considered. If it is not dealt with in the original draft of the treaty of the League of Nations, it will have to be taken up through a subsequent amendment, which, naturally, involves great delay. This is certainly the most opportune time to consider two of the great issues directly concerning all of mankind—the preservation of health and the prevention of disease.

The time is quite ripe for the questions of sanitation and hygiene, both physical and mental, to be taken up, and I would suggest that the Peace Conference create, through the League of Nations, an international bureau similar to the proposed Bureau of Labor. For this purpose, an article, somewhat like the following might be inserted in the text of the treaty of the League of Nations, viz.:

"The high contracting parties will endeavor to secure and maintain sanitary and hygienic conditions of living for men, women, and children, both in their own countries and in all countries to which

their commercial and industrial relations extend, and, to that end, agree to establish as part of the organization of the League a permanent International Bureau of Health."

A health-crusade could be started, aiming to establish a standard for decent homes to live in and for safeguarding health throughout the world. Such a crusade, if properly conducted by a competent International Health Board, would bring about most beneficial and lasting results. The need will then arise for efficient health-organizations in each country. Some countries are fortunate enough to have such health-organizations at the present time, others do not have them. The reason for this is, that competent local or national health-boards depend for their efficiency mainly upon the individual health-officers and sanitary engineers, who make up the health-organizations both in the smaller and larger communities.

Realizing the great need, at the present time, of such men and women as would be competent in health-matters, I have strongly urged, in a letter published in *The New York Herald* for January 8, the establishment, by the American people, of a large International Institute for Hygiene, Sanitation, and Sanitary Engineering in Paris as a "Victory Memorial," to commemorate the aid brought by the United States to the Allied cause in this war.

Such an institute would turn out efficient health-officers and sanitary engineers, who then could go forth into their respective communities and put into practice the best and most modern ideas on sanitation and hygiene.

A conference of the leading authorities in medicine, surgery, bacteriology, hygiene, and sociology met at Cannes, on April 1 last, to formulate a program of world-

\*It always must be remembered that these notes were written several months ago and that they are dealing with events now in the past.—Ed.

wide scope, the plan being to continue, in time of peace, with the necessary modifications, the work, magnificently humanitarian in purpose and practical in character, that has been accomplished by the various Red Cross organizations during the war.

There is no necessity to describe that work in detail. Its benefits are recognized by all, for, they have not been confined solely to the combatants. In only too many cases, the sufferings of the civilian population of the battle-swept area would have been immeasurably greater but for the energy, initiative, and self-abnegation of Red Cross workers. In this extension of war-relief work, the American Red Cross organization has been the pioneer and has achieved notable results. Under the vigilant and enlightened guidance of Mr. Henry P. Davison, formerly chairman of the War Council of the American Red Cross and now chairman of the Committee of Red Cross Societies, its services have brought aid and comfort, not only to the wounded and sick of the Allied Armies—French, British, Italian, Serbian, American—but, also, to destitute and suffering civilians.

The purpose of the conference at Cannes was, to outline measures necessary to widen still further the field of activity of the Red Cross societies in times of peace, the first step in that direction being, the organization of an International Council and Bureau of Hygiene and Public Health, which will map out the work to be undertaken in the new war that is just opening, a war against disease. Although the organizations, it is to be presumed, will retain their respective national character, they are to combine and form what may be called a Universal Red Cross Society, with its activities coordinated under a central committee of direction.

The importance of this great-hearted initiative can not be overestimated. One of the underlying causes of the discontent now prevailing in so many parts of the world is, the distress and disease that have been engendered by the war. What the League of Nations should be for maintaining peace, this union of Red Cross societies aims to be for protecting public health. It places child-welfare in the forefront of its aims, and rightly; for, unless infancy be safeguarded, it is a never-end-

ing task to create satisfactory social conditions. All humanity has a direct interest in the great project which the Red Cross societies, on the initiative of the American organization, are preparing to undertake; its progress will be followed everywhere with sympathetic attention and its success will be hailed with universal thanksgiving.

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At the request of the American Army Medical Corps, the professors of the Paris Faculty of Medicine will give a series of lectures on the progress made in medicine by the French. The lectures, which will be public, will be given on two afternoons of each week in the large amphitheater of the Faculté de Médecine. The first lectures, announced for the 25th and 28th of this month, will be delivered by Prof. Ch. Richet, who will speak on the work of Descartes, Levoisier, Claude Bernard, and Pasteur.

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Some eminent French, British, and American scientists left the Gare de Lyon last night for Cannes, to take part in the conference of the Red Cross societies that is to begin there tomorrow. In the French delegation, were Doctors Roux, Vidal, and Rist; the British delegation included Sir Robert Philip, Sir Ronald Ross, Colonel Lyle Cummins, and Dr. F. W. Menzies, while among the Americans were Major W. P. Lucas and Major A. P. Garvin.

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Doctor Zingher, one of our army surgeons, thinks it high time that the question of health become a matter of government and that a department of health be provided for in the League of Nations.

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The Permanent Blind-Relief War Fund for the soldiers and sailors of the Allies, an American organization founded by Mr. and Mrs. George A. Kessler, of New York, is increasing its already extensive activities by opening a large reeducational institution, in Lille, for those blind soldiers of Northern France that are anxious to return to their now liberated homes.

The French Government requested the fund, only a few days ago, to carry on this work in Lille, so as to enable more than 200 of the French blinded who come from these recaptured devastated provinces and who are scattered through-

out the various blind-institutions in France, to be reeducated near their families, from whom they had been separated and of whom they had heard nothing for more than four years.

The organization responded immediately through M. Brioux, the governmental head of the commission for the blind in France, that it would be pleased to support a school in Lille for these blind soldiers, who are overjoyed at the prospect of returning to their native land.

The organization has established altogether seven institutions for the blind in France and has contributed to the support of many others. It is a permanent contributor to St. Dunstan's, in England, which is the leading blind-institution of the world. It has grown to such proportions, since its organization in the early days of the war, that it is now taking care of the blind of eight nations. It has recently been called upon to take entire charge of the Serbian blind in Tunisia, the Portuguese blind, the Roumanian blind, and 800 of the Italian blind, of whom only 100 thus far have been taught trades or were reeducated in any way.

The fund's most recent contribution is the sum of \$100,000 to the American Red Cross for the American blind. The patrons of the fund are: the President of the United States, the President of the French Republic, the King and Queen of England, the King and Queen of the Belgians, and the King and Queen of Italy.

The executive offices of the funds at 75 Avenue des Champs Elysées are in charge of Mr. and Mrs. Kessler and Mrs. R. Valentine Webster, the latter at present being in London, at St. Dunstan's. Mrs. Webster has been called to Paris to resume her work in overseeing the various institutions of the funds in Paris, as the French Government has just put at the disposal of the fund two trains of 20 cars to bring the blinded soldiers from the Chateau of Rochecorbon, near Tours, to where they were taken last summer when Paris was being bombarded.

Everyone is called upon, in a memorandum just issued by the British Local Government Board, to assist in limiting the epidemic of influenza. Other infectious diseases can be checked by the public-health authorities, but, in influenza, it is the individual that must take measures to protect himself and to avoid conveying the

disease to others. As influenza is also prevalent in France, it may be that the following recommendations will be of benefit to residents in France, also. The reason is, that influenza comes on suddenly, rendering isolation impracticable, and that it is distributed, from person to person, by coughing and sneezing. Even in talking to a person, an influenza-patient may convey the causative germs.

The most important of all preventive measures, therefore, is, not to cough without covering one's nose and mouth. This precaution cannot be too strongly impressed upon the public. The other great measure is, to avoid contact with persons found to cough or sneeze, and to keep out of crowds. Also, if every person having a feverish cold or any other symptoms of influenza would remain in a room alone for a few days, the number of sufferers from the disease would be greatly reduced by that simple precaution.

Flushing bed-rooms, living- and working-rooms with air, the wet cleaning of offices, shops, public vehicles, and other places of that kind, and spraying these places with disinfectants are recommended by the local government-board. Dust is very dangerous, especially when contaminated with expectorations. During the prevalence of influenza, expectoration in any public place or in the home should be strictly avoided.

Among the greatest danger-places are, railway-carriages, omnibuses, and tramway-cars, to which may be added public telephone-callboxes. All these should be well ventilated and disinfected from time to time. The expense may be considerable, but, the loss through infection will be tenfold greater.

Notices warning against coughing, sneezing, and spitting should be posted in all public vehicles and places of assembly, for, in no other way, can the importance of avoiding these dangerous practices be impressed upon the public.

It is probable that infection is chiefly spread during the earlier stages, says the memorandum; that is to say, while one thinks he has only an ordinary cold. Great care, therefore, is necessary while the epidemic lasts, and symptoms that ordinarily might be regarded of little importance should be taken seriously. Workers can not lay up for every slight cold; but, people of leisure would act prudently by doing so. Everyone should look upon a cold as the possible beginning of influenza and, if

possible, should remain indoors for a day or two.

Most people place their reliance upon medicines; but, these are of very little real value. The chief thing to do is, to avoid getting infected or transferring the disease to others, by carrying out the suggestions here given.

In Paris, the municipal returns show that the number of deaths from influenza, on Wednesday, was 189, on Thursday, 209; these numbers being considerably less than the totals of previous days, although undue importance should not be attached to the reduction until further evidence is available. It should be noted says the *Temps*, that, to these figures, there should be added or partly at least those attributed to ailments of the respiratory organs, pneumonia and bronchopneumonia, an appreciable number of which originate in influenza.

Supplementing the measures taken by him against influenza, the undersecretary for the medical service has decided that, not only doctors but also mobilized pharmacists must be called in to aid the civil population.

At Grenoble, the Mayor has decided that the reopening of the schools and colleges, which was fixed for November 4, is to be postponed. Religious ceremonies in the churches have been suppressed.

[In view of the fact that we must expect influenza to prevail again this coming fall and winter, these notes may present some good points for the instruction of patients.—Ed.]

Major John Van Schaick Jr., acting Commissioner, for Belgium, of the American Red Cross, has sent in the following report on the occupation of Bruges by the Belgians:

"The American Red Cross entered Bruges the day after the Germans marched out. The 58,000 people of Bruges are delirious with joy. I had come to believe that the Flemings were stolid, but, they were not so today. Belgian flags fly everywhere. Everybody wears the colors. American and British flags are seen on all sides. I entered Bruges with three Belgian ministers. It was on ovation. Cheering crowds lined the sidewalks. They were cheering Belgians soldiers; watching for the King and Queen, cheering everything new. We visited the cathedral. It was packed. The bishop was saying a mass,

and it was a thanksgiving for deliverance. The fighting goes on just east toward Ghent.

"I am in a big house. I have a marvelous room, but, a bed of straw. 'The Germans took all our wool,' said the Rev. Comte Van Den Steen de Jehay, brother of my hostess. 'Oh, what a brute that German officer was. I told him my sister had had a terrible operation, that he must not take her mattress. All he said was 'If she is as sick as that, all she has to do is, to die.' 'The Flemings are not emotional' said the Count, 'and the Brugeois are especially cold, but, how they have cheered today.' We came to Thourout and here caught up with Dr. De Page and his new hospital installation. He has taken three big hotels at Ostend and an old convent at Thourout, with American Red Cross money. He called out to me, 'we never could have done it without you people of the Red Cross.'"

Once upon a time, Grand Dukes and other distinguished personages, when they wanted to be shown the seamy side of Paris, used to be taken to a "twopenny doss" Fradin's at 35 Rue Saint Denis, near the Central Markets. Here, they were able to see a crowd of poor wretches, who, after paying twopence for a bowl of soup, were allowed to spread their elbows on the table and go to sleep. They could not even lie down. No one knows how long ago the place originated, but, it has been kept by succeeding generations of Fradins. The war, however, has given it the "coup de grace" and it now is on the point of closing its doors. The mobilization swept away three-fourths of the habitants, and the older men that were left have been gradually eliminated by death and the almshouses. The last survivor, known as Father Julien, has slept there every night for seventeen years with his head on the corner of the table nearest to the kitchen-stove, and it is to be feared that the enforced change of habits will affect his health. At his age, one can not begin to sleep in a bed.

The various academies of the Institute of France are fixing the dates of the admission of new members. When the "immortals" come to present themselves before their fellows, they will find that they have a heavy tailor's bill to pay. The high cost of living has particularly affected the cost of clothes, and, today, there may be some



unhappy Academician who is bewailing his successful candidature or at least wishing that he had won his fauteuil either earlier or later. The gaily embroidered coat will cost him \$150, and the rest of his garments in proportion. As not even an "immortal" can appear without trousers, he will have to find \$25 more for that orthodox garment. Even the ornamental sword, which is *de rigueur* on these occasions, has gone up to \$20. Unless the unhappy happy chap can borrow the costume of a confirmed colleague, the prospect before the poor, even though illustrious, author is anything but pleasant, since he can not don even the feathered hat (which now runs to \$30) on ordinary occasions, and he is doomed to this extravagant expenditure for attire that will usually hang unseen and unworn in his wardrobe.

British and American soldiers in Paris have a club where they are welcomed on an equal footing. This is the Palais de Glace, once the popular skating-rink in the Champs Elysées, which the American Y. M. C. A. have turned into a club for the use of soldiers of the two nations. Besides its pleasant club-rooms, it has a theater where cinema-shows are given every afternoon and evening, and a vaudeville entertainment on Wednesday and Friday evenings, while Tuesday night is reserved for boxing. The Palais de Glace will now have its own orchestra, composed of five professional musicians, sergeants in the United States Quartermaster's Corps now in Paris, who will play regularly, at this club, for the soldiers of the Allied armies. Tonight at 8:15, Dr. Frank Bergen Kelley, of New York, will give an illustrated lecture at the Palais de Glace, on "Democracy versus Kaiserism." Doctor Kelley will discuss the difference between the governments of France, England, and the United States and that of Germany.

All fighting and no play undoubtedly makes the buck private a dull doughboy, which fact has constituted one of the great problems of the war. This problem has been met; but, with the arrival of peace, a far-greater difficulty must be faced. It will be months after the armistice before peace is concluded. It will take many, many more months to get the army home. No fighting and much leisure will leave the doughboy in a far-sorrier plight than before. There will have to be a great deal of play

of the right kind, if he is to be tided over the tedium of those months.

The great danger is, that the men will be forgotten in the less picturesque days when the war is formally over. The thrill of war will be past. The doughboys will be homesick and chafing under the restraint that keeps them in a foreign land. There is a very old proverb that foretells perfectly what is going to happen, unless something is found for them to do.

The entertainment-department of the Y. M. C. A. is already starting out to find this remedy, by getting ready to enlarge its program of amusement for American soldiers. At the present time, 65 professional companies are putting on shows for the A. E. F. in France, under the auspices of the Y. M. C. A. At least 100 professional shows are being presented every day, and on an average 700 amateur performances a week are being put on by the men themselves, trained by Y. M. C. A. coaches. This number will need to be doubled, or more, after the armistice is signed. There never was a time when the American soldier needed entertainment as much as he is going to need it in the months just after peace is declared.

Walter H. Johnson, of the entertainment-department of the Y. M. C. A. said recently: "The need and the opportunity for reaching the men will both be infinitely greater than they have been during the war. The men will be stationed in rest-camps and leave-areas, instead of in combat-divisions, as they have been up to now. Time will hang heavy upon their hands, and the situation must be relieved in every possible way.

"It can not be too strongly impressed upon the dramatic companies back home that the entertainment-war is not over when the fighting ends, but, only just beginning. Their real chance to be of service to the American soldiers will be greater in the months after the peace-treaty is signed than it has ever been before. We need all the entertainers that we can get, the best ones that the United States has to offer. The doughboy is going to be critical and hard to amuse during the months while he is waiting to be sent home.

"We hope to recruit a number of entertainment-units from the army itself when the war is over. A number of well-known entertainers of the United States are now fighting in the trenches, and we have asked the army to assign them to us as soon as

thy no longer are needed as fighters. The 'Khaki Trio,' one of the most popular entertainment-units, was assigned to us in this way by the army.

"We shall make an effort to double the number of coaches that are to train the doughboys to put on entertainments of their own. Nothing pleases the American soldier more than a performance in which he is an actor, and the average buck privates display astonishing ability in their amateur theatricals. Already an entire department of the Y. M. C. A. gives up all its-time to finding and making costumes for the A. E. F. companies, and the number of these costumers will have to be increased when the war is over. When the soldiers are stationed for a considerable time in one place, as is seldom the case in the combat-areas, there will be a much greater opportunity to train them for these amateur plays of theirs."

The army has prepared a list of thirty places for new leave-areas, and has asked the Y. M. C. A. to cooperate in getting them ready for the men. Adequate entertainment will be provided in these various areas as soon as they are ready for use.

B. SHERWOOD-DUNN.

Paris, France.

### INDUSTRIAL MEDICINE

In line with the present endeavors on the part of various enthusiasts that attempt to bring on the political, social, and economic millenium by legislative measures—but, far superior to these visionary attempts, because practical and individual—is the custom of various large industrial corporations to attend to the health of their employees through their own initiative and to secure the physical efficiency of their workmen through the services of a staff of physicians and surgeons employed by them at reasonable remuneration, for the purpose of keeping the workmen well and of restoring them to health in case of illness as soon as may be.

In accordance with this policy, we are informed that Armour and Company have made plans for the renewal of the medical examination of 12,900 men and women working in the Chicago plant of that concern. This means of safeguarding the health and safety of the Armour workers is not new, but, was discontinued during the war because of the urgency of orders

placed to keep the fighting forces supplied with food and the enormous amount of extra labor needed.

Dr. Volney S. Cheney, chief surgeon, and his corps of assistants will have charge of the huge task. Every worker in the plant will be examined free of charge. The value of visiting a doctor at least once a year for a medical examination, to discover any defects in one's health, and which may be easily corrected by treatment, is generally recognized by persons of means, who visit their doctors regularly, so that they may know in just what state of health they are.

Armour and Company, through their welfare bureau and their staff of doctors, offer this service free to their many workers, and, in case defects that may have interfered with a man's work are brought to light, the man or woman will be transferred to some other task in the plant that, in the opinion of the medical men, they are better able to perform.

### A REAL MOSQUITOFUGE

From a recent issue of *The Chicago Tribune*, we clipped the following article about what the sports-editor personally guarantees to be an actual and serviceable mosquitofuge. Perhaps some of our fishing and hunting colleagues will tell us how they found it to work out in practice.

"The north woods would be 'God's country,' indeed, if it were not for the pesky skeeters—durn 'em. Like most anglers, we have tried everything that we ever heard of in the way of fly- and mosquito-dopes and -lotions, some of which smelled worse than something rotten in Denmark, but, with only indifferent results.

"Now, after many years of fruitless search, we have found something that we know is the real dope. Here is the formula:

Equal parts of oil of cedar, oil of tar, oil of citronella, and olive-oil.

"If anyone were to hand us this formula, we should say, offhand, that it is so much like all the others that we have heard about that it wouldn't be worth trying; but, as a discourager of mosquitoes, it is a 'darb'—mosquitoes simply don't like it. Take our word for it and take some along when you go north. One of the worth-while virtues of this mixture is, that it has body enough to stav put. Two applications a day will do. [Will someone please tell the editor what is a "darb,"

and why? What's the "genealogy" of the word?]

"The only objection to it is, that it stains the skin a deep nut-brown (accent on the nut); still, it is quickly removed with pumice soap—we used the kind that comes in a can, and it works fine.

"We have been unable to learn where, when, and by whom this dope was originated, but, if the fellow that got it up ever applies for a Carnegie medal, he will have our unqualified support."

On a later occasion, the same writer says that, in his opinion, the merit of this mosquito-fuge lies in the fact that it stays put. As most anglers know, citronella is disliked by mosquitos, but it doesn't last. Mixed with heavy oils, as in this formula, it does stay on, and two applications, a day will do the trick.

"A brother of the angler who gave this formula a trial is as enthusiastic about it as we are and he suggests that a good coating of cold cream on the face and hands before applying the dope makes it easier to get off.

"Of course, all fishermen know that a good growth of stubble on the face helps hold mosquito dope—in fact, in some camps any man who shaves more than once a week is looked upon as too darned fastidious to associate with common folks!"

#### ANENT THE CAUSE OF "INFECTIOUS DISEASES"

It is a very rare occurrence for me to express ideas in regard to disease conditions, their cause or origin, and so forth, but Dr. Croft's article in the April number of *CLINICAL MEDICINE* has surely given our "bug hunters" some food for thought.

My personal opinion in regard to influenza has always been that it was due to atmospheric conditions, and not to a specific microbe or bacteria. Several members of an isolated family will come down with influenza almost at the same hour—not having been exposed by contact with anyone. Perhaps one or two members of the same family will nurse and care for the rest of them, and not contract the disease. Why do they not take it? My answer is this: It is because of the normal alkalinity of their blood, which is the true prophylactic of all disease.

That very familiar disease called tonsillitis is a similar disease, and is always

caused by gas irritation—the gases emanating from the stomach in such an acrid state as to cause irritation of the fauces, the resulting irritation making possible the bacterial invasion.

Diphtheria is caused the same way—either from gases from the stomach, or gases escaping from a poorly constructed sewer—the gases being of the same nature in either case. I do not believe diphtheria contagious, neither do I believe influenza contagious. Antitoxin antidotes diphtheria by raising the alkalinity of the blood, but it is necessary for the patient to receive large doses early in the disease.

I notice this in the treatment of influenza, namely, that the physician that put his patients to bed early, applied heat, absolutely prohibited all food for three days or longer, if conditions justified, gave warm alkaline drinks, and no depressant drugs, had fewer complications, and practically no deaths.

I do not attribute this treatment to luck, but to practical common sense. I make this statement from an unprejudiced standpoint, because I have not been in practice during this epidemic of influenza, but as medical director of a health and accident company have had an opportunity of reviewing hundreds of cases of this disease from physicians of eight states. The death rate in some localities has been a real calamity.

F. F. WINSSELL.

Minneapolis, Minn.

[The opinion that the normal alkalinity of the blood is an efficient prophylactic of itself—we might add, of bacterial disease—has a familiar ring, it having been expressed first by the late Professor von Behring, just about thirty years ago. If you are familiar with the tuberculosis literature of from fifteen to twenty years ago, you may remember that, in this country, Dr. Karl von Ruck, of Asheville, North Carolina, insisted quite emphatically upon the importance of a normal alkalinity of the blood for the immunity against tuberculosis. Indeed, for years, this alkalinity has been determined periodically and as a routine measure in all patients of the Win-yah Sanatorium. In one of the biennial reports (1907) from that institution, the subject is dealt with somewhat in detail.

While we freely admit your claim that the blood alkalinity stands in relation to

antibacterial immunity, we can not go to the same length as you do, being convinced that it will not do to undervalue or underestimate the possibilities for evil inherent in the pathogenic bacteria themselves. It must be admitted that too much has been attributed to this factor. Yet, it would not be wise to neglect it or to consider it as subordinate.—Ed.]

### STUDYING INFLUENZA

At the recent meeting of the American Medical Association, the section on Industrial Medicine and other sections passed resolutions asking for the appropriation of \$1,500,000 by the government, to be used for the purpose of carrying on an investigation on influenza, its cause, prevention, and treatment.

In referring to this resolution, Dr. Otto P. Geier, the Secretary of the section mentioned, enclosed a questionnaire, and answers containing the information asked for by a member of congress. This information undoubtedly will be of interest to the readers of CLINICAL MEDICINE, so, it is appended herewith:

Q. Will the epidemic again appear?

A. The epidemic will recur, for, medical history shows that we have had a series of influenza- or grip-epidemics, the last one of which proved to be of the most virulent type. There immediately occur to me those of 1867 and of 1889 to 1895. The Metropolitan Life Insurance Company has issued some very definite figures on this latter epidemic, covering millions of policy-holders, which show an average increased mortality, for the five years following, of 40 percent above the normal death rate. Any estimate of economic loss should include the 40 percent increased mortality that, in all likelihood, will similarly occur in the next four or five years.

Q. Is its origin fairly well known? If not, the likelihood of definite information by research.

A. Much private research has been carried on, but, its origin and spread still is undetermined. This must be collected and further stimulated, for, only through careful research, is there any likelihood of definite information.

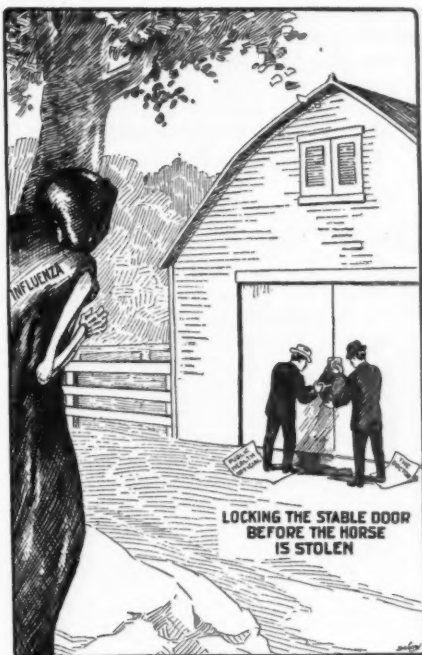
Q. What success in the discovery of an antitoxin?

A. The possibility of the discovery of a real antitoxin for influenza is wholly

dependent upon the discovery of the actual germ causing the disease.

Q. The possibility of collecting necessary information and its distribution among the people, to reduce the dangers of its spread and increase the chances of recovery?

A. I need but cite two of many similar researches, successfully undertaken, that have practically eliminated the dangers of the spread of disease; to wit, malaria and typhoid fever. Except for our knowledge about typhoid fever, the armies of Europe



Good Work! Let's Do It.

would have been decimated by this disease alone.

Q. The generally bad after-effects of the disease?

A. The generally bad after-effects of the disease are, unfortunately, too well known by the profession. The Red Cross Chapter in Cincinnati is expending perhaps \$200,000 in an effort to examine physically every person that has suffered from influenza; to discover the pathological conditions—bad heart, bad kidneys, bad lungs—resulting from this epidemic,

and relieving the poverty and chronic invalidism that accompanies it.

Q. The economic loss to the country through the epidemic?

A. The economic loss can hardly be estimated. The 500,000 deaths alone represent an economic loss of \$2,500,000,000. Economists all agree about the fact that \$5,000 is the minimum social and economic value of a human life. It is safe to say that 10,000,000 people had the disease and that they lost 150,000,000 working days. At a minimum combined loss of wage and production, of \$7.00 per day, there has been another \$1,000,000,000 of economic loss to the country. In other words, conservatively speaking, we had between \$3,000,000,000 and \$4,000,000,000 loss in this last epidemic.

### A PRACTICAL TALK ABOUT SORE THROAT AND DIPHTHERIA

"Sore throat" is not a scientific appellation, but, that is what the laity call it, and it is to discuss various useful treatments for some of the forms of this common illness that I would call attention.

I am wondering whether you are aware of the good results that often can be obtained, in the way of treatment, by the administration of granulated sugar. To illustrate, let me give two cases that recently came under my care.

An anxious mother telephoned me late one stormy night: "My baby boy (12 months old) is very croupy. He has been this way for several days and nights and is getting worse, in spite of all that I am doing. I fear membranous croup. I will not ask you to come out on such a night, but, my husband will call at your office for medicine when he comes home."

I told her to keep cold wet cloths on his neck. She said that she had been doing that. I also told her to feed the child all the dry granulated sugar that he would eat.

It was two hours before the husband arrived. I gave him iodized calcium, with directions to give  $2\frac{1}{2}$  grains of it every hour till relieved.

I saw the baby the next day. The mother said that the sugar was just the right medicine, for, the child went to sleep before the father got home, and no more medicine was needed.

A few days ago, I was called to see a middle-aged woman who had lost her voice

—aphonia. I told her to fill her mouth full of granulated sugar and hold it till the saliva moistened it so that she could swallow it. This she did and her voice returned at once. This is worth knowing, even though it may not work in every instance—no remedy does. Sugar has this in its favor: It nearly always is at hand and is not difficult to take.

Therapeutically, granulated sugar is a hygrophilic substance, reducing congestion through osmosis, that is, by dehydrating the tissues. It is an antiseptic, for, it is a germicide. It is a proper food, for, it is nearly pure carbon, is easily assimilated, rapidly converted into heat, and builds up muscular strength. Nearly all cough-syrups are largely sugar.

Quinsy sore-throat I can very often abort by giving one tablet-triturate of 1/100 grain of potassium bichromate. Let patient dissolve one tablet in the mouth every half hour. This soon relieves. Oftentimes a postpharyngeal abscess can be prevented, in this manner, as also pus formation in and about the tonsils and pharynx.

For sore throat in which the cervical glands are involved, most excellent results follow the administration of the following prescription:

Specific medicine of phytolacca	
decandra .....	dr. 1
Water .....	ozs. 6

Label: Shake well before taking.

Dose: One teaspoonful every half hour till relieved.

As to gargles, the following has been my standby all the years of my practice.

Potassium chlorate .....	dr. 1
Hot water .....	ozs. 16
Carbolic acid .....	drs. 2

Label. Shake well before using.

Gargle: Use freely every half hour. Do not swallow this gargle.

Most of the sore throats yield very kindly to this gargle; the patient saying, after using it, "That makes me feel better."

Speaking of this gargle, carries me back to the dreadful epidemic of diphtheria that devastated the population of Earlton, Ohio, in 1858-59.

My father, the late Dr. C. H. Cope, of Colerain, Ohio, used this gargle in connection with the other treatment below, in his very successful treatment of diphtheria. As soon as a diphtheritic patch was noticed in the throat, it was touched with



a probang dipped in pure beechwood creosote. When the parts turned white, the application was considered sufficient. The foregoing gargle was used every fifteen to thirty minutes. He prescribed calomel, 5 to 10 grains, followed by castor-oil or epsom salts enough to purge. Whisky, *ad libitum*. After this treatment was instituted, he had no more deaths.

For now thirty years, I have substituted carbolic acid for the creosote and 1/60-grain doses of strychnine, given every four hours, for the whisky, with equally good results.

I am telling you this in case you get into diphtheria-trouble and can not obtain antitoxin. You may use alcohol if you fear an excess of the carbolic acid.

C. S. COPE.

Detroit, Mich.

#### ABOUT SURGICAL AND IDIOPATHIC ERYSIPELAS

I was extremely sorry to read, recently, of the death of Dr. C. S. Pixley, who was interested with me in the active-principle propaganda during the early eighties. Doctor Pixley took charge of the eastern business, while I attended to the Western end, and, together, we two founded the journal that we started under the name of THE ALKALOIDAL CLINIC and which later was rechristened CLINICAL MEDICINE (July issue, p. 512.)

I note particularly in the issue of CLINICAL MEDICINE two articles on erysipelas, both relating to its treatment, but, neither of the articles differentiates between surgical and idiopathic erysipelas, when, indeed, there is a very wide difference in the treatment of the two (see pages 461 and 499.)

I am particularly interested in the article recommending magnesium sulphate in erysipelas. I am interested because I have been using it, both locally and constitutionally, in idiopathic erysipelas since 1866, and always with excellent result, while I have seen horrible cases of scars resulting from the use of silver nitrate tincture of iodine, and other escharotic substances.

But little effort seems to have been made to differentiate between these two varieties of the disease, treating all as though the cause were traumatic, and the knife has not infrequently been used in idiopathic erysipelas, because of great swelling, and

thus inducing suppuration that otherwise would not have occurred.

In the article, "The Local Treatment of Erysipelas," it says: "In the direct treatment of the entire infected area, numerous incisions are made into the skin, about one inch long, but, without causing much bleeding." I look upon this practice as being radically wrong in other than traumatic erysipelas, because it causes the easily managed condition to be changed into one of a serious nature.

In South Dakota, where idiopathic erysipelas was endemic in the early seventies, I saw many cases and treated many cases of them; my own with uniform success, while, in several instances, I saw the ill-effects of escharotics and the knife, both in the resulting deformity of those who survived and the burial of those who succumbed.

W. T. THACKERAY.

Fowlerton, Tex.

#### CENTRAL SOCIETY OF PHYSICAL THERAPEUTISTS

We are informed that the Central Society of Physical Therapists will hold its annual convention at the Atlantic Hotel, Chicago, from September 29 to October 1, this fall. The program will provide for papers on all branches of physical therapeutics. This is certain to be a most interesting meeting, and physicians who can arrange to be in Chicago during that time will derive much benefit from attending.

#### DIARRHEAL DISEASES OF INFANTS

*Functional diarrheas* are noninflammatory, showing frequent stools, large, lumpy, acid, and of varying consistence. There is gastric irritation, and abdominal pain of a cramp-like character may precede the diarrhea. They may be caused by the nervous excitation of dentition, irritant substances in the food or by overfeeding, coupled with heat-exhaustion after a too continuous spell of hot weather, in conjunction with great humidity and air stagnation. Exposure of feet, legs, and abdomen to drafts for an unduly long period or during the night may set up an intestinal disturbance expressed in an attack of diarrhea. These attacks usually are mild and easily cured.

The first important thing to do is, to prohibit milk in any form for twenty-

four or forty-eight hours, while permitting sterile water in small quantities and at frequent intervals for the first twelve hours, then adding rice-water, barley-water, egg-albumen water, buttermilk, whey, fat-free casein in 5 percent gelatin-water, also skimmed milk, gradually returning to a full milk-diet. The idea is, to reduce fats and sugar in the daily diet.

The preliminary dose of castor-oil or calomel, 1/10 grain every hour for ten doses, followed by castor-oil in sufficient dose to clean out the entire intestinal canal, then daily doses of milk of magnesia or aromatic syrup of rhubarb will control the milder cases. If stools still are frequent, bismuth subnitrate, bismuth salicylate, the phenolsulphonates (sulphocarbolates), in mucilage of acacia will check them. Fresh air, cool room, frequent bathing, irrigation with saline solution, and especially Rest are paramount remedies.

*Acute gastrointestinal catarrh* is expressed in a diarrhea with frequent thin green malodorous stools containing much mucus; besides high temperature, rapid weak pulse of exhaustion, and pain interfering with rest and sleep. There usually is vomiting of a persistent character. This, with the diarrhea, soon produces the facies of loss of body-fluids, sunken eyes, and pinched features; great thirst is manifested, but, any liquid swallowed persistently is vomited. The child is restless and shows nervous exhaustion; convulsions may ensue.

An attack of this kind is truly an intestinal toxicosis, caused by the rapid absorption of toxins from the gut, produced by pathogenic bacteria. Again the important thing is, to clean out the patient as thoroughly as possible, by means of active purgatives, such as castor-oil or calomel, and with intestinal irrigations with saline solution under low pressure. Gastric lavage is indicated in persistent vomiting, following which bismuth subnitrate or carbonate in 10-grain doses may be given, to sedate the mucous membrane. A combination of bismuth salicylate, bismuth carbonate, copper sulphocarbolate, mucilage of acacia, and cinnamon-water proves very effective in these cases.

Where there is much mucus in the stools and a little blood daily, magnesium sulphate, combined with copper sulphocarbolate and mucilage of acacia and chloroform-water and glycerine to sweeten, will prove effective, if given persistently. Where there

is much pain and distress, with frequent mucous stools, castor-oil in small doses of paregoric will be found serviceable.

For the high temperature, frequent bathing or cool packs are indicated. In conjunction, aconitine hydrobromide, 1/800 grain, gelseminine hydrobromide, 1/250 grain, of each one granule for each year of the child's age in twenty-four teaspoonfuls of water and given in 1-dram doses, will quiet restlessness, and reduce fever, lessen nervous excitation, as shown in jerking of muscles, rolling of head, and stiffness of neck-muscles. Irrigations of the colon with cool saline solutions are useful.

Atropine, in very small doses, is indicated in collapse, to check too great drain of liquids, in exhaustive sweating, as a stimulant. Camphor is useful hypodermically. Strychnine, hypodermically, in doses of 1/400 to 1/100 grain, is useful in great prostration, repeating every three hours.

When the temperature runs high, my main reliance is upon hydrotherapy. The cool sponge-bath, cool pack, and cool enemas or irrigations with saline solution are employed for this purpose, care being taken not to induce depression. Stimulants may be given either before the cold applications are made or immediately after. In emergencies brucine for infants and children in 1/64-grain doses may be given every two hours. Usually, the dose should be smaller, say, 1/134 grain. One granule with one teaspoonful of liquid peptonoids preceding the bath or sponging will be sufficient to ward off symptoms of depression.

In exhaustion or great prostration, hypodermocesis may be resorted to, using 50 mils, twice daily, of the saline solution; or continuous proctoclysis will give good results.

*The dietary* consists of articles advocated under functional troubles. Milk is absolutely forbidden, fats and sugars are restricted in the early stages, buttermilk, liquid cultures of bacillus bulgaricus in sterile water, whey, and lime-water may be ordered after the acute stage has passed.

The little patient must have rest, must be kept cool, the abdomen protected against sudden atmospheric changes by means of a soft flannel band, the buttocks kept clean, to prevent chafing, and plenty of fresh air and protection against flies ensured.

In *acute ileocolitis*, the symptoms of inflammation are added to those met with in

the condition just described. Vomiting occurs and there are frequent stools containing blood and quantities of mucus, very offensive, and connected with great tenesmus and straining. Recovery is slow, owing to the ulcerative involvement of the intestinal mucus membrane. Careful and patient treatment, both medicinal and dietetic, over a long period, is called for to restore these victims to health.

Some of these cases are difficult to differentiate from intussusception; however, in the latter, there is no high temperature; there are present vomiting and colicky pains, with the passage of blood-stained mucus, and the presence of a tumor-like mass somewhere in the abdomen can be made out.

The treatment is similar to that of the preceding; using rectal irrigations with hot saline solution, to relieve straining, or laudanum and starch, using 1 to 3 drops in 2 ounces of thin starch-water, repeating as needed to control tenesmus, but, taking care not to give enough to check the evacuations too rapidly. Later on, silver-nitrate solution, 1/3000, may be used to heal ulcerations or to control the discharges of blood. Copper sulphocarbolate or copper arsenite, in small dosage, will secure great benefit in those cases in which there are pain and tenesmus and discharges of blood. Emetine hydrochloride, 1/134 grain, every two hours, internally, or hypodermically, 1/4 to 1/2 mil of the standard solution, daily, also is beneficial.

The use of the ancient chalk-mixtures is not required, and, indeed, as a rule proves harmful. Opium indiscriminately given is bad, and astringents are not necessary until the intestine is thoroughly cleansed by means of calomel and castor-oil. The latter may be made palatable as an emulsion with acacia and flavored with some one of the aromatic carminatives. Calomel should be given in 1/10-grain doses until the bowel-movements are of better color and odor. It may take 8, 10, or 20 doses. Sodium bicarbonate may be given when there is acidosis or to alkalinize the stools. Magnesium carbonate in suspension, or milk of magnesia is better. Atropine, brucine, aromatic spirit of ammonia, camphor, strychnine, these are sufficient for collapse, exhaustion and prostration in lieu of alcohol or brandy.

*Screen the baby!* Flies infect and carry infection. Prevention is easier than cure. During the hot months, feed light and

easily digested foods and check overfeeding.

R. J. SMITH.

Pocatello, Ida.

[This excellent letter unfortunately, came too late for publication in our August issue. However, it is not too late even yet, to be studied with benefit; and, it may carry just the advice needed to save some baby or other ill with summer diarrhea.—Ed.]

#### GOOD OPENING IN MINNESOTA

We are in need of a couple of physicians here. This is the county seat, a booming town of 5,000, and a wealthy large territory, and only three doctors, two of whom are getting old. A physician who can do surgery would do extra fine here. Just come and go to work. Two of our physicians went to the army and will not return. Simply state among your locals, they are in need of a couple of physicians at Blue Earth, Minn. This will do a favor.

X. Y. Z.

#### FRENCH MEDICINE

I am very glad you are going to publish a series of articles from prominent French writers. I am happy, also, that you are so appreciative of the great medical and surgical work that they have done and always are doing. It is none too soon for the present generation fully to recognize it and to get away from the overvalued work of the Germans. As you know, until the late world-war, we have believed that the Germans were discoverers, and, not, followers. We have also believed that much they gave us was their own, and, not, taken, frequently without proper recognition, from the French.

Apart from these statements, I would add that, the sooner we give up the idea of too great localization of disease and overmuch local treatment in disease (which largely is owing to German thought and influence), and fairly estimate once again constitutional influence as to its effects upon the human economy, the wiser and more judicious will be our treatment. The judgement with regard to that influence we owe, in great part, to French medicine.

As a graduate of the French medical school and as a former interne of Paris hospitals and now a corresponding mem-

ber of the medical society of the French hospitals, I can not refrain from sending you the foregoing brief "God-speed" in your present doing.

BEVERLEY ROBINSON.

Westport, on Lake Champlain, N. Y.

[Thank you, Doctor Robinson, we are glad indeed to have your approval. While agreeing without qualification with you, we, yet, would point out that the importance of the constitutional factor, of late, has received more attention across the Rhine. Witness the books of Benedict and of Martius, for instance.—Ed.]

#### AS TO THE HEREDITY OF ALCOHOLISM

I have read with much interest the article by Charles B. Towns (July, p. 486), captioned, "Who Is Responsible for Drug-Addiction," and wish to offer a few criticisms, especially as I am personally interested in cases of this nature, and, while not having nearly the number of addicts to drugs or alcohol under my treatment that Mr. Towns has had, nevertheless, I have had very encouraging results in the treatment of some exceedingly obstinate cases.

Mr. Towns denies that drunkenness is hereditary, but, does admit that a drunkard may transmit an unstable nervous system to his offspring, and he further on states "that it is his own lack of nervous stability, and, not, the skeleton hand of some dead and gone ancestor that points him to the road of alcoholism or narcotic addiction."

Now, if alcoholism leads to an unstable nervous system in the offspring, and an unstable nervous system is the forerunner and usual cause of alcoholism or drug-addiction, what matters it whether the alcoholism or other drug-addiction is directly hereditary or not, if both father and child are excessive drinkers? Really, we are but quibbling and wasting time. We know that the children of drunkards are, as a rule, mentally, physically, and morally below par, that they are predisposed to epilepsy and other psychoses, that they are weak-willed and readily become criminals or are mere mental defectives, and that they more readily become alcoholics or drug-addicts than do the children of nervously more stable parents. Consequently, it is equivalent to a hereditary alcoholic craving, as

many, without knowing why, drink to excess the first time they ever touch liquor, while a normal person would stop at the first or second drink.

Furthermore, Mr. Towns goes on to assert that there is no such thing as the "disease of alcohol." He also says: "The alcoholic is a sick man; however, he is sick because of the alcohol used. He is not an alcoholic because of an inherent psychosis that impels him to the use of alcohol." Again, I must differ with Mr. Towns, and I speak from sufficient experience in such cases to know whereof I speak.

Mr. Towns refers to the chronic alcoholics. How about the periodical drinkers? How is it that they can keep away from liquor for one, two or three months at a time, and then suddenly give way and drink to excess, the spree lasting from one day to a week, after which they again are able to abstain for a length of time? I had one particularly marked case of this sort under my care, a fuller description of which will soon be published in *The Medical Record*. This patient was placed by me under a course of treatment, one year ago, and apparently cured, after two unsuccessful attempts at Mr. Towns' Sanatorium. From her own account, the first drink that this woman took lighted uncontrollable desire in her and she drank to excess the first time that she had ever tasted liquor. Since that time, she had become a periodical drunkard, going on pronounced sprees at intervals of from one to three months. These debauches always were preceded by a marked feeling of depression.

Mr. Towns to the contrary, notwithstanding, I must insist that at least the periodical drinkers, and most probably also the chronic ones, and the majority of drug-addicts are such because of a definite psychosis attributable to defective heredity. In the case of periodical drinkers, it is a psychosis similar to epilepsy, its periodicity and its preceding aura of mental depression bearing this out.

Furthermore, when Mr. Towns declares: "If a man is a drunkard or a habitual user of narcotics, he is one because he wants to be," he is unfair to thousands of these unfortunates who had acquired these habits during a temporary period of illness or mental depression, to which they were less resistant than are normal people, owing to a preexisting defective heredity; and,

later when the temporary illness has disappeared and they have acquired an insight into their true condition, they are truly anxious to reform and, yet, can not.

LUCIUS F. HERZ.

New York, N. Y.

We must confess that Mr. Town's assertion, that a man "is a drunkard or a drug-addict because he wants to be," struck us as rather brutal, and we are glad to see Doctor Herz taking position against this view. As to the heredity of alcoholism, possibly too much has been blamed upon it. However, the difference and fine distinction drawn by Mr. Towns, in his article, is, as pointed out by Doctor Herz, almost exactly the difference between tweedledum and tweedledee. Practically, he leaves us exactly where we were before. Namely, the possession of an alcoholic father or mother is a bad asset for the children.—Ed.

#### A CRITICISM OF DOCTOR DAWSON'S THEORY OF "THE CAUSATION OF SEX"

It would seem to require but a very limited exercise of reasoning-power to discredit wholly the proposition of Doctor Dawson, that the sex-economy of the female is, in itself, of a bisexual nature, and that female ova originate only in the left ovary and male ova only in the right ovary.<sup>1</sup>

His theory is next to absolutely impossible, even if viewed solely from a mathematical standpoint. Let us elucidate: A normal female (genus homo) is possessed of two ovaries. Thirteen times a year, an ovum is discharged from one or the other ovary, and thus, in the course of her thirty years of sex-life (say, from 17 to 47), a total of 390 ova (barring periodical pregnancies) pass from the ovaries. Let us assume that 6 pregnancies occur and mature in this model case. This means, the interruption of the passage of about 58 ova, all told. Therefore, her actual discharge of ova will be approximately 332, which are derived about equally from each ovary.

During the thirty years, we may estimate that 3,120 copulations occur. Therefore, Doctor Dawson would have us believe, in the case of a mother who has produced 6 daughters only, that out of 166 ova dis-

charging from the right ovary and out of 3,120 copulations (more or less—and all performed at random and under blind physical impulse) there never was once an opportunity for a single ovum from the right ovary to become fertilized and thus to result in a male.

Merely to state this mathematical disproportion of probabilities, which his hypothesis sets up, is enough to dismiss the latter as wholly untenable.

Neither will it be possible to urge that pathological conditions involved in the loss of one ovary can result in the suppression of one of the two sexes when on every hand can be pointed out mothers of great vigor and perfect health whose only indisposition through an active lifetime was upon the occasion of confinement and, yet, among whom we have those persistently giving birth, in some cases, to boys only, and, in others to none but girls.

I may be in error in this particular regard, but, it certainly seems to me that Doctor Dawson has strongly presumed upon the phenomenon of bisexuality of the species, as a whole, to explain away the bilateral development of the sex-organs.

There is a fact, adequately attested, as Prof. Thomas Hunt Morgan tells us in "Heredity and Sex," which can be used to great advantage in the further dissection of Doctor Dawson's theory; namely: that, if by any means, the female frog be compelled to retain her eggs in the uterus for two or three days beyond the normal time for their deposition, the issue will be 100 percent males.

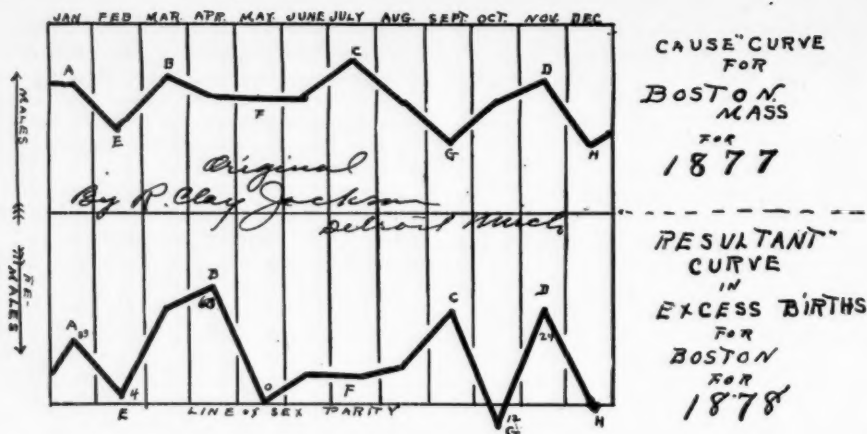
Since also in the frog the ova issue in approximately equal numbers from each ovary, and since also, under normal conditions, sex in frogs issues about equally distributed, then the fact cited by Professor Morgan, in the light of Doctor Dawson's theory, will force us to conclude that the female frog overheard in advance the contemplated experiment upon her person and that, for some unknown reason, she deliberately suspended the functioning of her left ovary.

Since Doctor Dawson's proposition is only theory and Professor Morgan's citation is fact, the absurdity of the foregoing conclusion causes a complete crumbling of the theory—favoring the fact.

Thus we know from experience, in the case of the frog, that, in all normal and nonmanipulated cases, the eggs do descend

<sup>1</sup>See book review, this journal, July, 1918, page 558.





from the ovaries, capable of becoming both male and female, and we, therefore, are compelled to admit that, in the case cited by Professor Morgan, the ova descended from both ovaries with male and female potentiality about equal. The conclusion is inescapable, that, in the case of the frog, sex-distinction did not arise in the ovaries, but, was gradually thrust upon the ova as a result of or concurrent with the change of environment from ovary to uterus.

Perhaps, after all, as strange as any other fact, is the contention by Professor Morgan himself, despite his citation in regard to the frog "that it is futile to seek for cause in environment."

As for my personal entrance into the discussion, it is impelled by the results of more than three years of practical researches among typical families and the recording and digest of nearly 400 cases. And, as a result, I can freely state, and am amply prepared to defend the proposition, that the operation of the prime factor in the determination of sex depends upon environment, that the mother is not, by any stretch of the imagination, a monopolist of sex-determining power, and, that each sex is possessed of a separate factor of monosexuality—the mother conferring femaleness and the father conferring maleness, as the case may be.

I have succeeded in plotting "cause" and birth-curves for Boston for a total of eleven years—seven years, back in the '70s, and 4 years since 1910; and for a total period of eleven years and one month in the birth-curve, the synchronism tallies to 95.8 percent and corrects its own "lag" and "ac-

celeration" in December and January of every year. This makes the reaction between cause and sex-differentiation average a 12-month period. The fluctuations of cause throughout one year governing the fluctuations in sex proportions during the following year. I have also obtained shorter curves for several other localities, and, from all I have been able to ascertain, mine are the first parallels that have ever been struck.

This birth-curve is not a sex-ratio curve, exactly—it is actually an excess birth-curve. For example, in April of 1878, there were 441 males born in Boston and 381 females. A difference of 60, as shown at "B." In October, occurred an excess of 12 females at "G."

R. CLAY JACKSON.

Detroit, Mich.

#### "THE ANTIVIVISECTIONISTS"

I do not agree with the sentiment expressed in your article on antivivisectionists (July, p. 463), and will send you quotations of eminent men in the profession that express my ideas. I am an antivivisectionist out and out.

Our Doctor Crile I consider one of the most inhuman, cold-blooded devils that ever graced the profession. He came into prominence through his bloodthirsty, egotistical craving for notoriety. He has killed more patients by his daredevil cruelty than he ever saved.

I have seen some of the most horrible, coldblooded, useless vivisection-demonstrating work done in Chicago and New

York that has ever been done. Have seen vivisection work done in New York and Chicago, and at Lakeside Hospital, Chicago, that made my blood run cold, and that I would have enjoyed to watch the operators suffer. Such men should not be permitted to do this work in any Christian civilized community. Talk about cruelties of German warfare! It is matched in medical colleges by Americans, and has been, every year, for years; answering no purpose except the amusement of the operators, to show their egotistical vanity before a gaping set of fools looking on.

F. H. TODD.

Cleveland, O.

[Of course, it is to be expected that among the more than one hundred and fifty thousand physicians in the United States there must be a goodly number that do not agree with our editorial views. Nevertheless, we reject your personal and vicious hit at Doctor Crile as not being merited.

Doctor Crile has accomplished more in the way of saving suffering to patients than almost any other medical man has done. In working out his ideas of anociassociation, it goes without saying that experiments on animals were urgently necessary. However, in the nature of things, it simply must be taken for granted that these experiments can not have been carried out in such a way as to produce *needless* suffering in the experiment animals; for, that would have defeated the object of the experimentator.

One of the principal tasks of the physician is, to relieve suffering. We are justified in taking all legitimate means that can promote the attainment of this purpose. Even if the working out of our problem entails a certain degree of pain upon the lower animals, the use of the latter for the sake of the ulterior end is justified; not only from the utilitarian but also from the moral viewpoint. We can not accept your condemnation of Doctor Crile's work as justified, in view of the eminently pain-saving results of his investigations.

As to the other things that you condemn, such as, the "useless vivisection-demonstrating work"; that was criticized just as severely in the editorial to which you take exception. Mark you, Doctor, our position is clearly set forth. Animal experimentation is justified and to be con-

doned *only* when it serves to discover something that we do not know, or to improve existing methods of benefiting suffering humanity. The undertaking of animal experimentation merely for the purpose of repeating well known experiments is open to serious objection and should be forbidden.—Ed.]

## DO NOT MISTAKE AN ANEURISM FOR AN ABSCESS

It is now many years, some forty of them, since, on a bright May morning, I registered in the office of a Pittsburgh, (Pa.), physician as a medical student. Ten minutes later, my new preceptor said to me: "The Pennsylvania State Medical Society is now in session in this city, in Music Hall. You had better step over there." In one-half hour I was in the hall. In the audience there were some five hundred intellectual-looking physicians and surgeons.

On the platform, already in the act of delivering the retiring-president's address, stood a tall, slender, clean-cut and dignified gentleman. His name was Dr. D. Hayes Agnew, then professor of surgery in the University of Pennsylvania. His subject was, "The Diagnosis of Abscess and Aneurism."

At that time, I was unaware that there were in the world such things as either of them. However, I took notice when he said that it was not difficult to mistake them and that such a thing as opening a supposed abscess which proved to be an aneurism was not an unknown tragedy in surgery. It made a vivid impression upon my mind, and about the first thing I learned thereafter was all about abscesses and aneurisms.

Some years thereafter, I saw a professor of surgery open what he supposed to be an abscess of the left shoulder-joint, and caused by an old dislocation. It proved to be both abscess and aneurism. The surgeon turned pale, while his assistant clapped his thumb upon the subclavian artery while the artery was being tied. Not ten students among the several hundred recognized the temporarily averted tragedy. Agnew's lecture enabled me to recognize the mistake. That night, the patient died from hemorrhage.

On passing the office of a young doctor the year of my graduation, I was called

into his private room. The doctor stood there with an abscess-scalpel in his hand. He pointed to a swelling over a patient's sternum and remarked that he was about to lance an abscess. I placed my finger upon it and felt the throb. I applied my ear and heard the bruit. Pressure caused it to disappear within the throat. The doctor promptly concluded not to open an aneurism of the aorta. However, it burst three days later.

Moral: Always think of the possibility of an aneurism before opening an abscess. Associate them in your mind.

V. E. LAWRENCE.

Ottawa, Kans.

### THE JOLLY SURGEON

Oh, the man o' the knife leads a jolly life,  
He works with a right good will;  
And, housemaids' knees and appendices  
Bear witness to his skill.  
The adenoid and the hemorrhoid,  
The subluxated sesamoid,  
And a lot o' those things folks can't avoid,  
Are grist to his daily mill.

On a shining tray, in bright array,  
At his good right hand are seen,  
All the instruments of consequence,  
With hemostats between;  
The snare and the loop and the gallstone  
scoop,  
The trachea-tube for the baby's croup,  
The probes for the ducts where the mi-  
crobes snoop  
Are all so bright and clean!

Most fortunate man of the M. D. clan,  
This tribute take from me,  
May your heart be light as my purse to-  
night,  
Though that could hardly be!  
When you are through, there's a harp for  
you,  
A welcome from St. Peter, too;  
But, I often wonder what you'll do  
Without your snickersnee.

FRANK L. ROSE.

Jackson, Mich.

### RED CROSS NOTES

While the armistice, which was signed last November, was recently followed by political peace, the Red Cross declares in its communications to the press that it knows neither armistice nor peace in its constant warfare against disease, against unhealthy living conditions, against starvation, all of which are lingering poisons injuring the body politic.

The Red Cross asks us to hold fast to the ranks who carry on in the work of res-

toration, to keep faith with the widows and orphans of the heroic millions that died on Europe's Calvary that we might live.

In continuing its work the Red Cross needs workers as it has never needed them before. This is evident if we consider the tremendous task before the Red Cross, which is constrained to aid in the reconstruction of the war-devastated countries, not only on the western front but, far more, in the Balkans and in the various smaller states of the former Austrian Empire.

In addition to active workers, the Red Cross needs the support of a large membership; this support to take the form of considerations in money and material—it is true—but also to give the encouragement and the moral support that are so necessary to those who, working amidst scenes of squalid destitution and devastation, are unavoidably subject to frequent periods of depression.

The Red Cross is getting ready to inaugurate a third nationwide roll call in which it desires to enroll *twenty million members*. Furthermore, there are needed, immediately, one million workers to take part in the many important activities of the Red Cross.

Let us all do what we can in furthering this important work. Let us at least join the Red Cross as members, paying as much by way of membership fee as we can afford. If we are in a position to give active service, so much the better.

The most tragic and costly disaster that has ever faced the world is, preventable disease. In the last two or three decades, great discoveries have been made in scientific medicine, bearing directly upon the causes underlying disease, the reasons for contagion, and the methods of checking great epidemics. The study of medicine has taken on a totally new aspect. It has assumed a social significance, and therefore becomes a social instead of an individual problem.

An international health organization is necessary because we must realize that an epidemic in southern Europe is almost as great a menace to us as it is to neighboring powers. There is a vital necessity for dissemination of health propaganda abroad. Particularly is this necessary in the devastated regions where the people are unable to do it for themselves, while the govern-

ments are almost bankrupt after the crushing burdens of war. The health needs of the Balkans may, on the surface, appear to be of little concern to us in the United States, but, if an epidemic develops there, we are likely to consider it a vital matter in a very few weeks.

The countries of the European continent are sick. The idea of a healthier and, therefore, a happier people appeals to every man no matter what his nationality. We want to reduce suffering and disease. We want to save the children. It is an ideal for which each one of us is willing to strive, but, we can not accomplish the big end by working as individuals. The situation is too complex. We must labor in unison. The people of America, through their Red Cross with its organization perfected and workers mobilized, must do their share in completing the tasks that confront humanity. The appeal to be made in the fall is an appeal to make secure the peace won by the sword; to give loyal support to this new after-war work of the Red Cross; to ease the burdens of our more unfortunate associates in the struggle for freedom, and to make the world a better place to live in than it ever was before.

The most startling announcement of the new Polish government is, the recent edict of the Ministry of Public Health ordering every man in Poland to get a "billiard-ball" hair cut. "All men without exception must submit to hair cutting," says the announcement. Girls above eight years are exempt. They will still be left in possession of their tresses if there is no danger of infection.

The object of the edict is a "cleanup" campaign to stamp out the prevailing typhus epidemic, more than 100,000 cases having been reported. The campaign is scheduled to last three months but, in all small villages, the people must have their hair cut and take a bath on a single day. So, the authorities advise that the villagers begin early, suggesting six o'clock in the morning as a likely hour. It is hoped to establish public baths in every village and town and to make compulsory the regular taking of a prescribed bath. It is also said that every piece of linen bedding and all the clothes possessed by the people should be subjected to a disinfecting process.

To carry out its cleanup plans, Poland has appealed for assistance to the Allies.

Poland is doing this not only for its own salvation but also in the interest of western Europe. Its health authorities point out that, if typhus is not stemmed in Poland, it will sweep on into western Europe. War has deprived Poland of most of its supplies, raw materials and machinery. For the "cleanup" she needs from outside: 100 medical specialists, 1,000 steam disinfecting machines, 160 mobile bathing plants, 800,000 pounds of crude creosol, 300 tons of soap and 200 pounds of camphor. The hair cutting job will require 6,000 pairs of clippers. In clothing, Poland needs 1,500,000 suits of underwear.

At the Columbus military camp in New Mexico, the Red Cross Canteen served cigarettes and minor supplies to 2,000 soldiers who were called out at 2 o'clock in the morning to rout the Villistas.

As soon as conditions looked serious, a Red Cross field representative at Columbus, New Mexico, was dispatched to El Paso, Texas, by the Red Cross. As a result of his work, all canteens in New Mexico and at other points in the border territory are now prepared to give to the American forces there the same service given by the Red Cross during the troop movements on overseas service during 1917 and 1918. Additional Red Cross workers have been added to the canteen staff at Deming, New Mexico.

Community singing is part of the life of every military hospital. Singing has been found especially helpful among the "psychopathic" patients whose minds have been affected by the war, or by wounds received in battle. Musical instruments have been provided by the Red Cross and bands and orchestras have been formed in many hospitals.

Recently, the American Red Cross gave an entertainment with moving pictures at one of the hospitals near Vichy. A young soldier suffering from a bad case of shell shock was in the audience. For several weeks, he had not been able to speak or laugh and the doctors had given up hope of making him normal again. Suddenly, Charlie Chaplin appeared on the screen and commenced his old Chaplinesque capers. The boy burst out laughing involuntarily and since that moment he has been able to talk and laugh as of old.

# Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

## The Actual and the Ideal

[Continued from August issue, page 596.]

I HAVE traced, however imperfectly, the trend of materialistic thought in our country, touching only upon the salient features of its tendency and progress, and, by implication, have inferred that among the occult causes of skepticism today must be reckoned the negation of the ideal, in favor of that which appeals more directly to reason and outward sense. We have seen also how the spirit of agnosticism, incrusting a genial faith, as well as the credence implicitly placed in precise, palpable, though evanescent, success have greatly modified alike the aims of life and the means employed in their pursuit; for, the relations of abstract thought to a practical lapse of moral feeling are, by no means, so remote.

Yet, whatever be our misgiving with regard to the superficial bias of the period, there are indubitable signs everywhere that virtue and honor still claim the reverence of men. Among the most startling expressions of higher life, may be instanced an address given not long ago by the president of the merchants' association of one of our largest cities (shopkeepers, think of it!), who, in closing, redeemed the littleness of a generation by these words:

"And, finally, if there be a hardheaded, heartless, and penurious man of business (such are plenty within the sound of my voice) who spells the conjunction 'but' with two t's and deplores sentiment and enthusiasm and love of knowledge, because they do not conduce to the instantaneous acquisition of the last obtainable cent, I bluntly tell him that the world is governed by sentiment; for, what else are love and patriotism and religion?"

It is difficult to see how business could go on for a day, were so elevated a theory as this merchant's to obtain general acceptance. It is like an echo from Arcady and must have sounded apocryphal to many a bewildered hearer. It vindicated Endy-

mion's opening verse: "The poetry of earth is never dead"; and the fact that an utterance like this, nowadays and on such an occasion, was actually allowed to stand on the record is augury of wiser years and truer lives than our morning papers are wont to announce.

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How readily do we assent to our secret admission of that which we are prone to conceal—the leaven of daily life that runs imperceptibly through and quickens all our thoughts and deeds, transfigures the uncouth places and disarms incredulity by the magic of its influence! And, we may proudly say, obscure though his days may have been, seldom passes from us a lofty character but that some eulogium somewhere bestows upon that quiet achievement the recognition it has claimed. It is in its calmer moments that the soul recovers what amid the vague unrest of strife often is veiled from its perception. Yes, herein lies a mighty obstacle to our spiritual advancement.

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What least characterizes our national life is repose. We must not rebel against a foreign criticism like this from the *London Athenæum*—a very aristocratic and absurd journal, if you like—yet, not so far wrong in many of its reproaches to us, invited by foibles which we are too vain to correct:

"The author of 'As Common Mortals' is very fond of talking, in a rather sensation way, about 'the American intention.' The intention of the great republic is, to conduct its affairs on business principles, so that the women can not conscientiously read a novel in the morning and the men consider a social cause to be a deplorable waste of time."

This strange infatuation of haste, this overestimate value of what is commonly called "work" is a mortal injury to ideal progress. It is impossible not to



sympathize with the brave housekeeper who declared: "I will *not* sacrifice my peace and happiness to this miserable battle with dust. I would cultivate tidiness as a cardinal virtue; but, I see that, do what I will, some molding, some sash or cranny or inaccessible corner is sure to gather motes and ashes, so that I might, if I chose, devote myself exclusively to this weary task of cleaning and, yet, never, never find all things perfect. Even were my house immaculately ordered, there would still remain that wretched barn—and my guests might possibly discover my incompleteness in its cavernous and unkept recesses. No, let us compromise and not sink all in this appalling endeavor."

The opposite extreme might be exemplified in the case of a lady who, arriving in a pine grove, where the ground was strewn with woodland debris, wished only that she had brought a broom! This was neatness run mad—still, it was intensely practical in its way, betokening the "fine madness" chided by that London magazine.

It is melancholy, this incapacity for repose, which shortens life, makes battery-cells and -currents of corporeal tissues, and jars upon the brain surcharged with never-ceasing care. What wonder that our literature teems with astounding conundrums: "What shall we do with our girls?—and with our boys and our wives and husbands and grandmothers? What shall we do with anything, anybody, anywhere? Take me away or give me some genteel anodyne! Alas, is life worth living?"

Sorry introspection and blasé iniquitude! Come, let us, children, forget those labors for a day. Away with dustcloths and darning-needles, away with books and logarithms and stethoscopes and microscopes! Out into this pure morning—and may every balmy breath from heaven be hellebore to your heated brains and may every heartbeat bring you fresher sensations!

We know that trifles are part and parcel of our earthly lot; we do not shrink from them nor underrate their value. We have learned that no task is mean when stimulated by the wholesome endeavor to be true; and we admit the divinity of sweeping, even as did saintly Herbert. But, oh! can we forget the spirit immortal that expands in this sweet sunshine, like the flowers at our feet? Lo, how much have we

toiled to acquire a knowledge of these "lilies of the field," and, yet, we cannot analyze one delicious perfume! The thrush on yonder bough, embodiment of rapturous melody—do we not know the minutest anatomy of the frame that enshrines that delicate heart? And, yet, its song, forever new, forever captivating, wells forth in mysterious cadence, and why he sings; yes, why the music touches a responsive chord in us, fills our souls with answering madrigals, we can not know despite all the erudition found in our college-halls.

Know? Ah, there is the pith of it! Here again we confront the ideal, which, despite all metaphysical subtleties and the terrible syllogisms of Caledonian logic, is to the mind an entity, since it has to thought a palpable, perceptible existence, bearing to spiritual life the relation which form and color bear to outward sense. There is, in truth, a knowledge of feeling as well as of apprehension, and it is to this sphere—the world of sentiment, not sense—that we must turn to discover the significance of moral life and recognize the solemn veracity of Tennyson's reflection, "Knowledge comes, but, wisdom lingers": or, as Thoreau oracularly announced "Wisdom does not inspect, but, beholds."

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In imagination, as by Ruskin, distinguished from fancy, do we find the medicine whereby all earthly objects become transfused with grace and through which the ideal assumes a loveliness and purity that only the devoutest receptivity can understand and only a mind attuned to the highest vibrations can thoroughly enjoy. To all of us, however, is granted some degree of this divine gift of spiritual insight. "Whoso seeketh wisdom," says Solomon, "shall have no great travail; for, he shall find her sitting at the door." ("Apoc.")

It is the glory and privilege of the ideal to dwell within the humblest and to render more than royal the most obscure conditions of life. Blind Homer and blind Milton both were filled with the sacred afflatus; Bunyan in Bedford jail, Raleigh in the Tower, Dante at Ravenna, John Brown at Harper's Ferry, all these withdrew from the sorrows that compass the actual into that serener realm of ideality that hath a balm for every worldly wo, besides whose still waters there is perpetual peace and

joy. Have these great spirits and their like lived in vain even for our prosaic century? Are not the associations which touched their hearts, the uplifted thoughts that charmed their meditation in some measure possible to you and me?

It is imperative to make a stand against the materialistic onslaught that art, literature, and society are conspiring to effect, lest we be overwhelmed by its fury. When a novelist high in repute caters to the prurient taste of the public in all his work; or limits us to the trivial accidents of an hour; when an artist sets his palette with meretricious colors and the sculptor prefers Quincy granite above Carrara marble; when even music struggles for expression and we are commanded to applaud formless compositions of aspiring, yet, questionable genius, till we sigh for a simple, tender adagio of Mozart, tranquil and suggestive as moonlight on summer seas, is it not time to square our shoulders and strike a blow for goodlier things? If fidelity to imagination, to ideal standards leads to social ostracism, better, infinitely, that silent converse with the best and truest in us than communion with lesser souls!

It was the fashion, when that wise and gentle critic, Matthew Arnold, spoke to us of "the saving remnant," to sneer at his earnest plea for natural selection in society. His doctrine was heinous in our democratic sight. This question involves a higher consideration than the gratification of the American public, namely, the testimony of history and the truth revealed by personal experience. It is, we can in modest moods imagine, of small consequence to heaven whether our vaunted greatness outshines all others; it is of vital import whether truth shall suffer at our hands. To every one, the parting of the ways must come soon or late. Here lies the path to comfortable compliance with the thoughts and manners of those with whom our lot is cast.

*Vox populi, vox dei*—"a plausible motto for a republic, but, wanting in philosophical veracity." For what, let me ask only, clamored the people before that conscience-smitten tribunal well-nigh twenty centuries ago! No, in this other path, in the pursuit of the ideal, we stand alone, save now and then it be that some kindred soul should bear us company. The fashion of the times, what the Romans are doing at Rome, have

no significance or interest for us. Their idols are not our deity, their aims are foreign to our purposes. Each dreams, frames in his thoughts his own type of perfect nobility and truth, and in the world and by his own hearth-stone the high resolves, deepened by secret deeds and words, make him lowly great, whatever be his earthly lot—or, moulding his desires in conformity with alien manners and opinions, he waives his spiritual freedom and is fused in the general mass.

Fidelity to the ideal asks of us, as a primary requisite, strong individuality as well as the gift to perceive the good, the beautiful and the true. There must be no half-heartedness, no temporizing with our convictions, no relapse into the lethargy of despairing doubt and hopeless endeavor. We live in a "blatant land", and every day the prestige of material success is imperceptibly shaping in the public mind a plutocratic worship unspeakably sad and pernicious in its effects. How far the noxious influence of its examples has proceeded may be noted in the pregnant expressions of skepticism heard on all sides among those to whom fortune has brought no harvest save weariness and discontent.

The *carpe diem* of Horace has become a cardinal maxim in the code of those who would sacrifice all to present ease and self-indulgence. "Life is a journey; live well on the road." "We have but one short hour upon earth; let us make the most of it." "It will be all the same a hundred years hence." "We'll make it right in the morning." "It's all in a lifetime." These current phrases betoken, in their collective an'imus, all too clearly the shrinking conscience and sybaritic desire so widespread among us. All ends at last in disenchantment and self-reproach. The jaded faculties, tired of the restless search after the peace that passeth not understanding, surfeited with idle pleasure that offer no stable felicity, finally recoil upon themselves, only to find that the youthful ardor which once cherished a fair and ennobling ideal has been stifled in the deadly atmosphere of hard fact.

No power can exorcise the Mephistopheles welcomed to the fireside of exultant hope. Bitterly must our hapless Faust recall the early joy, where in his meditation in the presence of the Sublime Spirit, smiling upon his lowly heart in the benignity of natural loveliness, his spirit caught the

blesed rapture of imaginative longing ere it yielded to the passionate eagerness which all worldly possession could not assuage.

Very fortunately for us, or for those of us who prefer truth to mere conformity and prize thoughts above things, the ideal above the apparent, there is another and more comforting aspect of the seemingly sad plight of blind humanity.—and this we will now consider.

In ancient Greek ethics, Saturn, overcoming Uranos, cast his mutilated body down into the sea, where, from the froth churned up by the mighty fall, was born the mother of love, Aphrodite, from whom sprang the visible universe—a shadowy, sensual imitation of the real world, which is invisible. That is, time (Saturn), which is one name for anthropomorphism, mutilates in man's mind that immaculate conception of heaven with which each soul comes into the world, and he replaces divine love with sensual love; and lo! fleshly children are born instead of angels; pure thoughts. So, also, the ancient Hebrews inform us that the first creation is pure, Love's image and likeness, and that the second is of earth, fleshly, desirous, capable of temptation. And in Orphic philosophy all visible things sprang from Nox, night; as, according to the Hebrews, Eve, the mother of the unhappy human race, came of Adam while he was asleep. When our eyes are shut to the real truth, we self-create a substitute mistaking that for the real.

It is because of these two phases, truth and appearance, that we have culture. Culture, in the last analysis, is trust, the possession of which by a man directs his attention to the purity and beauty which the wise knows lies at the root of everything and every action. It enables us to distinguish the real from the false, because its business is solely with the god in man, ignoring the devil in him: so that, if a person were all devil and no god, culture could not know him, nor he it; while, if he were all god, that is, all love, he would stand the living personification of culture. We see the fall of this idea in what is called breeding, deportment, social etiquette; for, these are the apes and shadows of love,

affording to the ignorant and superficial now and then a vision or floating image of the real kindness and love that should initiate every action of mankind.

Lowell said that the highest outcome of culture is, simplicity—not the simplicity which, with wide eyes and mouth agape, beholds glittering externals, not the simplicity of the rustic, which sees in every extraneous object something that he does not possess and which, therefore, he wants; but, the simplicity of wisdom, which sees in all things only effects, not causes, knowing that all causes lie within itself, and which, therefore, renders its possessor incapable of envy, resentment or longing, endowing him with a vast capacity for love.

If Plato sees that "poetry comes nearer than history to vital truth," it is because culture has so far opened his eyes to what vital truth is that he is able to distinguish it even through the voluminous folds of the apparel with which men habitually envelop it, and upon which they bestow the names history, arts, sciences, religion; because culture has raised him to so lofty a level that he can examine vital truth, not as a boy reading history, but, as a principal character in the history, himself. "It is not proper" says Zoroaster, "to understand the intelligible with vehemence; but, if you incline your mind, you will apprehend it—not too earnestly, but, bring a pure and inquiring eye. You will not understand it as when understanding some particular thing, but, with the flower of the mind." This is culture. Without this as directed to painting and sculpture, there could be no Raphael, no da Vinci; to music there could be no Beethoven, no Wagner; to literature, no Goethe, no Shakespeare, no Emerson; and, to life, no Christ. This culture, this love, this trust is the one vital difference between the poor brute and the pure man, and, in the proportionate absence of it in each observer, we see the reason why men and nature, as well as his own birth, unhappiness, and death, are such incomprehensible mysteries to him. The more love a man has, the more he sees simple reason where others see mystery and rank injustice.

(To be continued.)

# Among the Books

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## PRICE: "PUBLIC HEALTH AND HYGIENE"

Public Health and Hygiene. By George M. Price, M. D. Second edition, thoroughly revised. Philadelphia and New York: Lea & Febiger. Price \$1.50.

This little manual, or epitome, of hygiene and public health contains the essentials of what has become a distinct science and about which a voluminous literature has developed within recent years. It contains, in a small compass, the information that every general practitioner should possess concerning problems of hygiene and public health.

After the introductory chapter, the author takes up the discussion of housing-hygiene, school-hygiene, industrial hygiene, public-water supply, food supply, milk supply, the disposal of waste matter; public nuisances, the prevention of infectious diseases; federal hygiene. Thus, it will be seen that for physicians that are not public-health officers and, therefore, obliged to study the questions of public health in greater detail, Doctor Price's little book offers just what should be known.

## OVERTON-DENNO: "THE HEALTH-OFFICER"

The Health-Officer. By Frank Overton, M. D., D. P. H., and Willard J. Denno, M. D., D. P. H. 8vo., with 51 original illustrations. Philadelphia and London: The W. B. Saunders Company, 1919. Price, \$4.50 net.

In contrast with the book just above reviewed, the present volume is intended for the information of the health-officer as to what he must know in order intelligently to discharge his duties. It tells the health-officers what to do, how to do it, and why they should do it. It describes the various activities in which a health-officer engages, his relation to boards of health, physicians, social agencies, and the public;

his qualifications and methods of work; the various diseases and insanitary conditions with which he deals; and the scientific principles upon which preventive medicine is founded.

The book is the result of the years of experience of authors in public-health work both in rural communities and in the city of New York, and as supervisors of health-officers under the New York State Department of Health. While the book primarily is designed for health-officers, its simple language and untechnical form will commend it to college-students, public health nurses, members of boards of health, social workers, teachers, and others interested in public-health work.

## BROWN: "RECOVERY FROM TUBERCULOSIS"

Rules for Recovery From Pulmonary Tuberculosis. By Lawrason Brown, M. D. Third edition, thoroughly revised. Philadelphia and New York: Lea & Febiger. 1919. Price, \$1.00.

Doctor Lawrason Brown's rules for recovery from pulmonary tuberculosis have been followed, during the last few years, by a good many tuberculous patients, with decided advantage to themselves. To those to whom the author's name is not familiar, it may be of interest to mention that he is a pupil and for years was a close associate of the late Doctor Trudeau, at Saranac Lake, whose methods of treatment and whose views concerning tuberculosis very naturally were imbibed by Doctor Brown.

This little book was written by Doctor Brown for the layman; it gives just the right amount of information, both in quantity and quality, to serve the intelligent patient, and to enable him to take up and bear his burden courageously and persistently; also with a good chance for success. There is any amount of good sense in this little book, and its reading should

not be confined to patients alone. Most general practitioners can glean many wholesome lessons from its pages. Also, they may use it as textbook for their patients.

#### FISHER-FISK: "HOW TO LIVE"

*How to Live.* By Prof. Irving Fisher and Eugene Lyman Fisk, M. D. Fifteenth edition, completely revised. New York and London: The Funk & Wagnalls Company. 1919. Price \$1.50, net.

Since the first edition of this book of rules for healthful living was reviewed in these pages (Sept., 1916, page 799), fourteen new editions have been issued; proof that the book certainly filled a want and afforded much useful and needed information.

The most recent editions of the book have benefited from the recognition, in General Crowder's reports, that close to 40 per cent of the men called, drafted into the army in 1917 and 1918 were disqualified for active military service because of physical defects. The pity of it is, that a great many of these defects could and should, have been avoided. The important point, however, is that the fact is being recognized as it never has been appreciated before and that strenuous efforts now are being made throughout the width and breadth of our land to prevent preventable ill health or imperfect health and to better the health of the people in whatever respect it can be improved.

This is one of the chief purposes of the book under consideration and we can but repeat what we have said in our earlier review, namely, that the purpose of this book has been well achieved and that it undoubtedly is a valuable guide for interested students.

#### SIMON: "CARRIERS"

*Human Infection carriers: Their Significance, Recognition and Management.* By Charles E. Simon, B. A., M. D. Philadelphia and New York: Lea and Febiger. 1919. Price \$2.25.

This is a book that, manifestly, ought to be studied by every general practitioner for the reason that the subject of infection carriers is of the greatest importance. It is somewhat in the nature of a shock that the information comes to us in the preface that, in institutions in which infectious diseases

are treated which are apt to result in the development of the carrier state, no examination is made previous to the discharge of the patient to ascertain whether or not he is apt to prove a menace to others. Evidently, not only in these institutions but also in private practice, it should be incumbent upon physicians in charge to see to it that their patients who recovered from a communicable disease are not "carriers" in the accepted meaning of the word and that they will not endanger others with whom they may come in contact.

The book deals with a discussion of the problem under consideration only in connection with those diseases of bacterial origin or which are due to the activity of a filtrable virus and in the dissemination of which healthy human carriers are now known to play a role, viz., carriers who either have never passed through an attack of the corresponding malady themselves, or, having done so, have clinically recovered. The maladies in question are, cholera, diphtheria, typhoid and paratyphoid fever, dysentery, epidemic meningitis, poliomyelitis, pneumococcus pneumonia, certain streptococcus infections (such as camp septicemia, bronchopneumonia, septic sore-throat, erysipelas and puerperal fever), influenza and, possibly, also the pneumonic form of plague.

#### BEST: "THE BLIND"

*The Blind: Their Condition and the Work Being Done for Them in the United States.* By Harry Best, Ph.D. New York: The MacMillan Company. 1919. Price \$4.00.

This exhaustive study of the various problems presented by the presence of blind persons among our population was referred to, editorially, in our July issue (page 468). Blind people seem to have a peculiarly insistent claim upon our sympathy and our assistance, especially if it is considered that, in so many instances, their blindness was acquired, without any fault of their own, through the carelessness of accoucheur or midwife, and, originally, through the sins of one of their parents, operating through an unhealed gonorrheal infection. In other cases, trachoma, glaucoma, and other serious eye diseases have caused blindness. Only comparatively infrequently is blindness the result of an industrial accident. At the present time, a not inconsiderable number of blind returned soldiers are be-



ing taught the means of readjustment and independent work, having been blinded at the front through various agencies.

From a study of the sixth chapter of the book, devoted to the causes of blindness, it appears that, as a fair estimate, 64 percent, or nearly two-thirds of the blindness in the United States, is of a preventable nature.

That being true, it manifestly is our duty to study the problem of blindness with great care, in order to alleviate and ultimately to remove the various causes now all too often leading to this affliction. We frequently have had occasion to refer to the activities of the National Committee for the Prevention of Blindness and now wish to direct the close attention of physicians to this study by Doctor Best in which "all about the blind" has been collected and collated with unusual care.

The book is most valuable for those studying blindness in its socioeconomic aspects; it also serves to center the attention of physicians upon a physical disability that they, more than others, are called upon to prevent.

#### HOFFMAN:: "EVERYDAY GREEK"

Everyday Greek: Greek Words in English, Including Scientific Terms. By Horace Addison Hoffman. Chicago: The University of Chicago Press. 1919. Price \$1.35.

Here is a useful little book, one that presents a brief course for studying the derivation of English words of Greek origin. The medical profession should feel grateful to the author for having given a preponderance of medical terms in listing and discussing scientific terms. The reason for this is, that the author has tried (and succeeded) to make his work especially helpful to medical students; moreover, the medical terminology has, to a certain extent, been handed down from the ancient Greek physicians and preserves more fully the true Greek forms and meanings than does that of most other sciences; and, further, many of these medical terms have come into general use and belong to everyday speech.

However, the Reviewer can not quite conceive how anyone with absolutely no knowledge of Greek would proceed in studying this book. It may be supposed that success would depend entirely upon

the "sticktoitiveness" of the individual student. As for the Reviewer, himself, although his days of Homer lie back more years than he cares to count, enough has "stuck" in memory to enable him to greet old familiar friends in the pages of this book, while, alas, enough has sunk below the horizon of consciousness or knowledge to make him very grateful for the assistance afforded in these pages. The book is recommended to physicians desirous to know what they are talking about, to understand the meaning of the terms employed daily and thus to accustom themselves to a correct diction.

#### "THE MEDICAL CLINICS OF NORTH AMERICA"

The Baltimore number of *The Medical Clinics of North America* contains a clinic of Dr. Lewellys F. Barker's on funicular myelitis, or combined sclerosis of the spinal cord. Dr. Julius Friedenwald discusses personal experiences in the treatment of ulcer of the stomach, while Dr. John Ruhrah deals with some of the aspects of epidemic influenza in children. The influenza-epidemic is recalled to us, further, by Doctor Clough's discussion of pneumococcus-sepsis, also by Doctor Bloomfield's clinical diagnosis of epidemic influenza. In addition to these, there are presented a number of other clinics dealing with subjects equally as important and interesting as those that have been mentioned.

*The Medical Clinics of North America*, of which this issue is number 6, volume 2, is published bimonthly by the W. B. Saunders Company, of Philadelphia, at an annual subscription-price of \$10.00.

#### WHITE: "PROSTATIC DISEASE AND IMPOTENCY"

Prostatic Disease and Impotency. New and Original Methods of Treatment. Illustrated. By George Starr White, M. D., Los Angeles, California. 1917. Price \$5.00.

This is the latest book from the pen of that indefatigable worker along new and original lines of treatment, Dr. George Starr White, whose "Lecture Course to Physicians" is well known to the readers of *CLINICAL MEDICINE*. The book before us is printed, in accordance with Dr. White's custom, on a manilla-tinted paper which certainly is restful to the eyes. The type

is clear and legible, while the spelling, conforming with the 1918 bulletin of the Simplified Spelling Board, is somewhat disturbing to those not accustomed to it.

Dr. White discusses prostatic disease and especially its diagnosis with reference to the "bio-dynamo-chromatic" system of diagnosis that is original with him in its present form and application. Among the causes of prostatic disease Dr. White attributes even greater importance to venereal diseases, notably gonorrhea and syphilis, than is admitted commonly. This is because of the fact that a great many patients, who either have apparently been cured of their venereal diseases or in whom no symptoms have ever been manifest, show a positive bio-dynamo-chromatic reaction.

In the treatment outlined, Dr. White gives ample reason for the faith that is in him. He is, by no means, a therapeutic nihilist, employing certain drugs where they are indicated with persistence and, undoubtedly, with good results, but he depends largely upon physical methods of treatment, electricity and the various rays, including the quartz lamp (artificial sunlight).

The Reviewer has been impelled to read this book through rather carefully because of the interest that was aroused by it. We believe that physicians studying the book will be attracted in the same manner.

#### PATTEE: "PRACTICAL DIETETICS"

Practical Dietetics with Reference to Diet in Health and Disease. By Alida Frances Pattee. Twelfth edition, revised and enlarged. Mount Vernon, New York. A. F. Pattee, publisher. 1918. Price \$2.00.

Pattee's "Practical Dietetics" has become an annual publication, a new edition being issued each year, revised, so as to incorporate the latest results of research in dietetics; this assuring this useful little book being constantly kept up to date.

This book strikes us as being eminently useful and practical for physicians as well

as nurses. The theory of nutrition and of dietetics is condensed sufficiently so as not to become cumbersome, while the practical part contains a wealth of recipes for foods, including attractive and nutritious dishes and beverages, besides the necessary guidance for the arrangement of suitable menus, with regard to their contents of proteins, fat, carbohydrates, and so on.

While, to pick out one example, it has generally been agreed upon among tuberculosis-physicians that the stuffing-method in vogue not so many years ago is to be deprecated, because it is essentially harmful to the patients whose digestive and assimilating powers are weakened, Miss Pattee outlines a plan of diet for tuberculosis-patients that appeals to the Reviewer as being eminently sensible. For instance, a man that at active work might have required from 3,000 to 4,000 calories per day would, at complete rest and while under treatment for tuberculosis, receive sufficient nutriment from food representing 2,500 calories.

On the other hand, the man of sedentary occupation, of the same weight, who, in normal health, required, say, 2,500 calories, might need 3,000 calories while being treated for tuberculosis if his treatment would include in part some light exercise. In similar manner, the diet for tuberculous patients, as, indeed, for patients suffering from almost any disease affecting the assimilative powers, must be strictly individualistic and may not be regulated according to a fixed routine plan.

In the chapter on diet in diabetes, the Allen treatment, of course, especially as elaborated by Doctor Joslin, receives close attention and has been described fully. In the diet prescribed for patients having gastric ulcer, we miss, strangely enough, that method originated by Doctor Bertrand Sippy, of Chicago.

Pattee's "Practical Dietetics" may be recommended without hesitation as a useful, handy, and fairly complete manual that can be consulted with confidence.



# Condensed Queries Answered

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While the editors make replies to these queries as they are able, they are very far from wishing to monopolise the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

## Answers to Queries

"Fracture of Clavicle."—In answer to one of your inquiries (Query 6443, this journal, August, p. 602), regarding the treatment of a fractured clavicle, permit me to say that there is no dressing yet devised that will immobilize the fragments in apposition, in a fracture of the clavicle, for any length of time that will give anatomically good results. Experience has shown that even the x-ray frequently does not show the full extent of the injury. In my experience, the majority of fractured clavicles have three fragments one of which usually is a rectangular piece that slips behind the other two fragments. The only really safe, the only reliable means of immobilizing, therefore, is by open operation and laying plating. This, when perfectly done, keeps the fragments in absolute apposition, the only disadvantage being, in some instances, that the plate must be removed later. However, at that time ossification already has taken place and the plate

has performed its function. A great many surgeons approximate the fragments with kangaroo tendon and, while that holds the fragments near each other, it does not give accurate apposition and when healing is completed the x-ray does not show the outline of the normal clavicle but shows the fragments overriding. I will agree that practically we may get a good result from the Sayre-Velpeau dressing, and also with the kangaroo tendon suture. But, anatomically, there is not a perfect line of continuity of the normal clavicle.

BENJ. H. BREAKSTONE.

Chicago, Ill.

[We are glad, indeed, to receive this information from Doctor Breakstone who is an experienced surgeon. The procedure described by the Doctor undoubtedly will assist some of our readers in securing better results in their fractured-clavicle cases. —Ed.]

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## Queries

Query 6448.—"Nocturnal Epilepsy?" G. L. C., Maine, presents for consideration the case of an Italian, 37 years of age. "The patient, a strong, well-proportioned, well-developed man, stonecutter by trade, began, about two years ago, to wake up his fellow sleepers by crying out in his sleep. His friends tell him that he is pale when thus crying. He retires at different hours and just after he falls asleep he will cry out—a good loud cry, not a moan, but a cry that suggests fright. It matters not what is his work, what he eats, what he reads or converses about before going to bed. He has no pain except for a precordial distress when he cries

loud enough and often enough to wake himself up. His reflexes are normal; his blood pressure, though, is below normal. The Wassermann test shows a negative reaction. The urine is normal. The only physical peculiarity about this man is that his finger-ends are clubbed with a fatty enlargement or swelling along each nail. He has consulted many doctors of different schools and has stayed at hospitals, for observation. He has received no benefit whatever."

It would appear that this is a form of nocturnal epilepsy and, under the circumstances, we should make a very thorough examination of the patient and keep him

under close observation. Careful dieting, the maintenance of thorough elimination, and the administration of small doses of the bromides may control the condition; still, it is just likely that circumcision and thorough dilatation of the anal sphincters will exert a more definite influence.

Ascertain the family-history, pulse rate, blood pressure; and, if the patient is addicted to the use of tobacco or drinks coffee in excess, interdict them.

The fact that his man has been treated by many physicians and has been under observation in hospitals would lead us to believe that you will have great difficulty in ascertaining the basal pathology.

Bear in mind that, in some such cases, dilatation of the urethra, with cold steel sounds (increasing by one size at each sitting) sometimes has proven extremely beneficial.

Query 6449.—“Scabies.” G. L. S., Missouri, wishes to know what we recommend for the treatment of general itch—very few lesions.

By “general itch,” we assume that you refer to a true scabies. In such cases, treatment is purely external and the three essential remedies are, sulphur, balsam of Peru, and beta-naphthol. Unquestionably, sulphur is the more effective of the three.

It is essential that the burrows of the parasites be opened up, and this result may best be secured by having the patient take a prolonged hot bath and then scrub with green soap using a bristle brush. The body may then be rinsed and the tub be refilled with warm water, into which one pound of flower of sulphur is poured. The sulphur is taken up in the hands and rubbed thoroughly into the body for some time. The skin is then dried and the patient dons a union-suit into which sulphur has been thickly dusted. In the morning, he sheds this suit, takes another bath, then puts on clean (preferably new) underwear. One such treatment, properly carried out, frequently proves curative.

A very effective ointment is one containing flower of sulphur, drs. 4; balsam of Peru, drs. 4; beta-naphthol, dr. 1; benzoinated lard and petrolatum, of each enough to make 4 ounces. Before this ointment is applied, the patient takes a hot bath, and, if the skin is not oversensitive, scrubs with green soap. The oint-

ment is then rubbed vigorously over the entire surface below the chin-line. This procedure is repeated each night for two to four days, the patient not changing his underwear. Ten or twelve hours after the last application, the patient takes a bath, then changes his underwear and also his bed-linen.

The only internal medication that at all could prove of benefit is arsenic sulphide, administered in alternation with calcium sulphide.

Do not forget that pruritus hiemalis (winter-itch) and several other dermatoses quite frequently are confounded with scabies. As a matter of fact, very few cases of so-called “prairie-itch,” “digs,” “scratches,” et cetera, are an effect of the presence of the *acarus scabiei*.

Query 6450.—“Dioscorea as an Antispasmodic.” W. K. J., Kansas, reports that he is having “all kinds of success with dioscoroid as a pain-reliever in sciatica, dysmenorrhea, and colic of every description.” He wishes to know whether the drug can be given hypodermically.

Dioscoroid, being a concentration of the vegetable drug, is not completely soluble, so that serviceable hypodermic tablets can not be prepared from it.

As you are aware, *dioscorea villosa* has long been recommended as an antispasmodic, and is of value, not only in bilious but also in other forms of colic, painful abdominal neuroses, and gastrointestinal irritation. As a rule, if relief is not secured within an hour, the drug should not be further relied upon.

In the pain incident to the passage of biliary calculi, the dioscoroid should be associated with full doses of gelsemium.

Dioscorea has proven valuable in some neuralgic affections, spasmodic hiccup, obstinate vomiting, gastralgia, dysenteric tenesmus, and dysmenorrhea. The Eclectics consider it useful in indigestion, hepatic congestion, and chronic gastritis of drunkards; also to allay after-pains.

Very large doses are liable to produce vomiting.

It is just possible that a fluid preparation of *dioscorea* suitable for hypodermic use could be prepared; still as already pointed out, the preparation of hypodermic tablets does not seem feasible.

We shall investigate this subject further and trust that you will favor us with a

further report on your experience with the drug.

Query 6451.—“Anemia of Uncertain Origin.” P. F. L., Alabama, has, as a patient, a boy of 15, weighing 95 pounds. His skin is clear, smooth, and soft; mucous membranes are pale; tongue is pale, with a slight brownish-white coat. He is neither fat nor emaciated. The lymph-glands are here and there slightly enlarged; his muscular development is moderate; posture is erect; bones and joints are all right; also his lungs; pulse is 66 per minute; no murmur or thrill are detectable in the heart, but, the first sound is accentuated. Liver is enlarged, tender all over; the spleen is very slightly enlarged or maybe normal. His face swells somewhat during sleep.

“He perspires very little; drinks very little water, possibly a quart in the twenty-four hours; feels tired and worn out all the time; appetite is very variable; there is shortness of breath upon exertion (pretty severe exertion is required, according to my observation); he rests poorly, dreams a good deal; is moody, and has despondent spells; he worries when he has to miss school; has indigestion, also alternating constipation and looseness of the bowels (it can not be called diarrhea). He has had the measles and attacks of malaria. Is very fond of sweets (candy, cane-syrup).

“At present, he is receiving chionanthus, 10 drops, every hour. All sweets of any character are forbidden. He takes dilute hydrochloric acid before meals, taken in a glass of water.”

We regret to say that, with the information supplied, it is difficult to venture a diagnosis. You say this boy has never been in good health. Under such circumstances, a Wassermann test might prove decidedly informative. Anemia is evident, and the enlarged liver and spleen are suggestive.

As you will observe, the quantity of urine voided is excessive, especially considering the rather limited amount of fluid ingested. The test indicates that sugar is present to the extent of 4.21 Grams and that the total urea is 11.78. There are present a few renal cells, colon-bacilli, and staphylococci, besides a few pus-cells and

a moderate amount of squamous epithelium.

Were we in your place, we should investigate this youngster's sexual habits, and place him on an almost carbohydrate-free diet and push galactenzyme. In addition to chionanthus, which is an excellent remedy in such cases, we should give, after meals, berberine and the arsenates of iron, quinine, and strychnine, with nuclein.\*

This boy should be kept under observation for a prolonged period, and, we believe that treatment will have to be varied from time to time to meet changing conditions. He should, of course, spend as much time as possible in the open air, exercise moderately, and be instructed in deep breathing.

It would be well to submit to a reliable laboratory specimens of his blood. Also, it would be well to throw some light upon the family-history, especially with reference to syphilis and tuberculosis. The possibility of a chronic malarial infection must not be overlooked.

#### THE TREATMENT OF THYROID INTOXICATION

In a case of “internal,” or, better, intrathoracic goitre, reported by Dr. Joshua H. Leiner (*N. Y. Med. Jour.*, August 2) in a Russian woman, thirty-four years of age, the Forchheimer's treatment, with quinine hydrobromide and ergotin, caused a slight improvement in the thyrotoxicosis. It is needless to state that the dietetic and hygienic surroundings received suitable consideration.

When this treatment was stopped, a relapse occurred, the symptoms of which, as far as they were manifested in hot flushes and tremor, yielded to ovarian extract. When decided symptoms of relapse became manifest, this patient was given five-grain doses of thymus extract three times daily through which a decided improvement had become evident two weeks later.

Doctor Leiner mentions that, in case of exophthalmic goitre, the thymus likewise undergoes a hyperplasia; and although theoretically the feeding of this gland is contraindicated, clinical experience teaches that beneficial results have followed its administration.